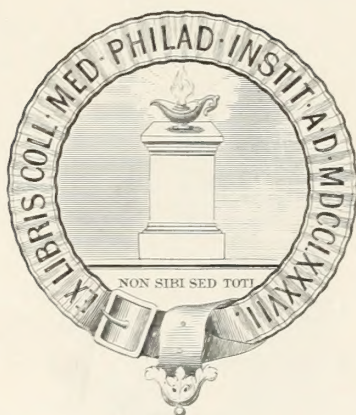




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THE CHICAGO

MEDICAL EXAMINER:

A MONTHLY JOURNAL DEVOTED TO THE

EDUCATIONAL, SCIENTIFIC

AND

PRACTICAL INTERESTS OF THE MEDICAL PROFESSION.

EDITED BY

N. S. DAVIS, M. D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE, IN THE
MEDICAL DEPARTMENT OF LIND UNIVERSITY, ETC., ETC.

AND

FRANK W. REILLY, M. D.

VOLUME II. 1861.

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THE CHICAGO MEDICAL EXAMINER

VOL. II.

JANUARY, 1861.

No. 1

ORIGINAL CONTRIBUTIONS.

REPORT OF COMMITTEE ON PUBLIC HYGIENE AND LEGAL MEDICINE.

NOVEMBER, 1860.

*Mr. President, and Gentlemen of the Chicago Academy of
Medical Science:*

In pursuance of the object for which this committee was appointed, efforts have been made to gather information from all quarters of the city, respecting its general health, and the character of the diseases which have manifested themselves in our midst during the past year.

The result of our investigation has been a renewed conviction that Chicago has for this period, enjoyed a remarkable exemption from those severe and wide-spreading epidemics so frequently the scourge of both city and country in other parts of our land; a conviction hardly to be arrived at by a merely casual observer of our topography, unacquainted with the facts at hand.

The Fevers, both periodical and continued, which are always met with to greater or less extent, have been infrequent and mild, and the more important phlegmasiæ, Dysentary and Erysipelas, have but borne their due proportion in prevalence and degree.

In the summer months, the bowel-complaints of children were the chief claimants of our attention; nor did these present any unusual features or require extended treatment. Fatal

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results were generally the consequence of long delay in applying for professional advice, occurring more commonly in children of the poorer classes, and those subjected to unfavorable hygienic influences.

Measles, Scarlatina and Hooping Cough, have not prevailed to any great extent, and for the most part have been mild in course, though in summer some cases were complicated with Diarrhœa, and a few in the third or fourth week, with a cough of great severity, took on cerebral symptoms, terminating fatally.

Cases of Pleurisy and Pneumonia have been rare and quite amenable to treatment.

The disease which has attracted most attention during the year past, has been Diphtheria. We quote the following from the experience of a well known practitioner: He says, "during the month of October, November and December 1859, I met with it most frequently on the extreme western and south-western border of the city. In the latter part of the winter and early spring, it seemed more prevalent in the north-western part of the city. During the summer months, I rarely met with a case anywhere.

In September, I again saw five cases in the north-western section, between west Kinzie and Third Streets, and during October, I have had six well marked cases on the eastern and southern border. In the autumn, and early winter of 1859, my cases presented symptoms of an active sthenic character, with a decided tendency to invade the Larynx, adding the peculiar symptoms of Croup. Primary attacks of Croup were common at that time."

This gentleman adds that the tendency just referred to, does not seem to him to characterize the disease as he has met with it during the month of September and October, 1860; that, "it seems to be accompanied by a lower grade of fever, an earlier prostration with earlier and more abundant secretion of mucous in the fauces and nostrils, emitting a decidedly putrid odor," and finally, notices "a more distinctly remitting type in the accompanying fever."

In general, we do not find it the opinion of physicians that Diphtheria has, during the year in question, at any time been entitled to be styled an epidemic. We may here notice a remarkable variety of opinion as to the pathognomonic symptoms of this disease, some practitioners making much more rigid discrimination between Diphtheria, Inflammatory Croup and Tonsillitis with ulcerated sore throat, than do others, who seem to regard all pseudo-membranous formations in the throat, as Diphtheritic, alike in kind and origin, but varying in degree.

As to the prevailing methods of treatment in this affection, we merely say that these vary quite as widely as do opinions in its diagnosis, though at present a general sustaining course seems to be agreed upon.

In the department of Legal Medicine, your Committee deem it advisable to call the attention of the Academy solely to the acknowledged fact, that criminal abortion, with all its attendant moral and physical evils, is becoming more and more frequent in our community.

It is, therefore, with a view to the enlightenment of the public mind upon this subject, and with the conviction that the immediate tendency of the practice is toward absolute Hindooism, that we urge upon the profession the adoption of some decided measures for the arrest of the spread and increasing frequency of this unnatural crime.

In conclusion, we offer some statistics, based upon the last census, which may prove interesting:

The ratio of mortality for the entire city of Chicago, for the year commencing Oct. 1st, 1858 and ending Oct. 1st, 1859, was as 1 to $60\frac{1}{4}$; and from the last date to Oct. 1st, 1860, 1 to $55\frac{2}{3}$.

During these two years, the proportion of deaths of children under 5 years of age, was about 5-9ths of the whole mortality.

Mortality of South Division, (2 years), as 1 to $54\frac{1}{3}$

“ “ North “ “ “ 1 to $61\frac{8}{9}$

“ “ West “ “ “ 1 to $59\frac{2}{3}$

Respectfully submitted,

H. W. JONES, *Chairman.*

INVERSIO-UTERI—ITS CAUSES—MECHANISM AND MEDICO-LEGAL BEARINGS.

By N. S. DAVIS, M. D.,

Prof. of Principles and Practice of Medicine in the Medical Department of Lind University, and Prof. of Clinical Medicine in the Mercy Hospital, Chicago, Ill.

Having been recently compelled to occupy the witness stand in the Circuit Court of this city, for more than two days, under examination on the subject of Inversion of the Uterus, I have thought it might not be unprofitable to the readers of the *Examiner*, to publish the testimony there given, more especially as the opinions therein expressed are the result of a previous careful investigation of the subject in all its relations. I am enabled to do this with facility from the verbatim notes of a professional reporter.

Inversion of the Uterus, is not only one of the most serious displacements or causalties to which the lying-in woman is subject; but in the present state of medical literature, it can hardly occur in the practice of any physician, without subjecting him to serious suspicions of mal-practice; and if the case should unfortunately become the subject of legal investigation, it will almost certainly result in confirming such suspicions, and consequently blasting a reputation which had cost its possessor twenty or thirty years of hard professional toil to establish. This is owing chiefly to three circumstances, that will become apparent to every one, who candidly enters upon an investigation of the subject.

1st. The former very general custom of employing Midwives in obstetrical practice, instead of educated physicians, and the natural tendency of the latter when called to a case of inversion already existing, to attribute it at once to the ignorance and injudicious pulling of the attending Midwife. Thus of sixty-four cases of *inversion* to be found within my reach, in which the causes are stated by those reporting the cases, thirty-eight were attended by Midwives, and of this number twenty-nine are said to have been produced by *traction* on the cord. While of the twenty-six attended by physicians, only eight are alleged to have been produced by traction on the cord or forcible efforts

to deliver the placenta. So great a disparity in the relative proportion of cases, occurring from the same alleged cause can scarcely be regarded as accidental.

On the contrary, it affords strong presumptive evidence, either that the Midwives have been, in many instances at least, accused of forcible traction and inversion without any other proof than the fact that an inversion was subsequently found to exist; or that physicians have been unfaithful in reporting their own cases, by purposely concealing the true cause.

The latter supposition necessarily impeaches the integrity of those members of the profession who have reported cases of inversion occurring in their own practice, and hence cannot be entertained for a moment by any candid man.

For we not only find among them men of the highest eminence and of unimpeachable veracity, but their reports show beyond all cavil, that inversions do take place without traction on the cord or any other kind of interference whatever. Thus we find several cases in which the inversion followed during the same pain that expelled the child, and consequently before any interference could have taken place by the attendants.

In several other cases the inversion occurred during the first pain succeeding the expulsion of the child, and while the attendant was neither touching the cord nor any part of the person of the mother. Such was the case reported by Prof. D. H. Storer, in the *Boston Medical and Surgical Journal* several years since. But if it is conceded that cases have occurred thus spontaneous, or without the slightest interference on the part of the attendants, and in the presence of such men as Denman, Radford, Storer, &c., there is no possible reason why other cases may not occur in the same way in the presence of the most obscure practitioner in the country, or even in the hands of the most ignorant Midwife.

It is very apparent, therefore, that the mere presence of an inversion is not fair presumptive evidence that violence has been done, by pulling on the cord or in any other way, and as a large proportion of the cases attributed to the action of Midwives, rests on no other foundation, they should be rejected from all attempts to estimate the importance of traction on

the cord as a cause of inversion. If we follow this rule, and take only those cases which have been reported on the authority of the physician or midwife actually in attendance, we shall find the number attributed to traction on the cord or any other undue measures for removing the afterbirth, proportionately small; indeed scarcely more than twenty five per cent of the whole number. This we admit, is a widely different result from that stated by Dr. C. A. Lee, in a statistical article on *Inversio-Uteri*, in the *American Journal of Medical Sciences*, for October 1860. On page 344 of that article, Dr. Lee says: "Accordingly, we find that of the 148 cases, of which an abstract is above given, the cause is assigned in only 62 cases, and of those 39 are stated *to have been attended by midwives*, a large majority of them in Europe. In 39 cases, moreover, we are expressly informed that the inversion occurred *from pulling on the cord*." He then specifies by enumeration these 39 cases; but on referring to the cases thus specified we find no less than 10 of them destitute of any such allegation as "*pulling on the cord*." One of these 10 cases, is the noted one reported by Dr. Skae, in which the inversion occurred after an abortion taking place at the fourth month of uterogestation. Another is the case reported by Dr. Storer, in which he says: "in five minutes after the child was born, the placenta was expelled, the cord *not being* touched except to divide it. On examination, the uterus was found inverted with the placenta attached." In making up important statistics an error of 10 in 39, is quite a distance from mathematical accuracy. Again, on page 358 of the same article, Dr. Lee says: "We have seen above that of the *fifty-two* cases in which the cause of inversion is assigned, *thirty-eight* are distinctly stated to have occurred from traction on the cord, &c." These are but a small share of the gross errors and discrepancies contained in this article of Dr. Lee; but enough surely to render his deductions entirely unreliable. Passing by these discrepancies, however, and examining in detail the 38 or 39 cases alleged by Dr. Lee, to have occurred from pulling on the cord, we find 29 of them, to have been attended by *midwives*; and not one of which was reported directly on

the authority of the midwife herself. And yet she was the only one who could actually know whether any traction was made on the cord or not.

2d. The second circumstance that presents a very strong barrier against the physician in a court of justice, consists in the *assumption* on the part of many eminent writers, that the simple existence of an inversion is *prima facie* evidence of mal-practice on the part of the attending physician or midwife. Thus Dr. Robert Lee, of London, says: "Inversion of the uterus is frequently, if *not invariably*, the consequence of pulling on the cord, to extract the placenta, &c." Colombat says: "The most common course of inversion consists in attempts to deliver the placenta immediately after the birth of the child," &c. Ramsbotham says: "Whenever this serious accident has happened, it may *generally* be looked upon as the consequence of *improper* treatment." And Dr. Chas. A. Lee, in the article to which we have already alluded, says: "Where an inversion is first detected some days, weeks, months, or years after delivery, blame is very apt to attach to the attending physician, and the censure, implied or expressed, is with very few exceptions, *undoubtedly deserved*." It is true that the truth of these statements, is either doubted or denied by equally high authority, such as Tyler Smith, Radford, Simpson, Meigs, &c., yet it does not prevent their exerting a strong influence. And still a little reflection will satisfy any candid investigator, that no statement could be more unphilosophical, or less supported by well ascertained facts. They are unphilosophical because they make the simple existence of an inversion, proof that undue violence has been used in the removal of the placenta, and thereby *beg* the whole question at issue. Having done this, they write down every case as occurring from traction on the cord or violence in the removal of the placenta, that happens to occur in the hands of a midwife or an obscure practitioner, and then adduce these same cases as numerical proof of the correctness of their first assumption. Could any pretended series of cases be less reliable, or any process of reasoning more absurd? But Dr. Chas. A. Lee, in his recent paper on this subject, goes still farther, and on page

344 uses the following language, viz: "In analyzing the above cases, it is to be regretted that many of the original reports are so imperfect, that we are often left to *surmise* the cause of the accident. This is what might, perhaps be expected; for, if it is an accident—as many writers allege—which may, with proper care and skill, *always be prevented*, then it is not to be presumed that the practitioner who places much value on his reputation, will be forward to acknowledge that so serious an accident has resulted from his ignorance or neglect. Hence, also, we may look, not unfrequently, for cases of *spontaneous inversion*—cases in which the womb, without cause, provocation, or premonition, turned itself inside out, all at once, some days, weeks, or months after delivery, on going to stool, straining, laughing, crying, singing, walking, or other kinds of exertion, or no exertion at all. And we are asked in all seriousness, to wonder at such strange anomalies, and ask why nature should enact such *freaks* without special object."

Here we have, first, a direct intimation that inversions, can "always be prevented," by proper care and skill on the part of the attending physician; and second, that those in whose care inversions have occurred, have been guilty of making false reports, by omitting to state the true cause and alleging spontaneity of occurrence, for the purpose of shielding their own reputations. These charges are certainly more grave than modest; and it may not be amiss to ascertain to whom they apply. In simply looking over the list of cases contained in Dr. Lee's own article, we find one case of inversion occurred in the practice of Dr. Robert Smith, two in that of Dr. A. Fisher, one in that of Dr. Mackay, of Buffalo, one in that of Dr. Geo. J. Fisher of Sing Sing, one in that of Dr. J. G. Forbes, one in that of Dr. E. Fisher, one in that of Dr. W. L. Sutton, one in that of Dr. D. H. Storer, of Boston, one in that of Dr. W. J. Square, one in that of Dr. Lever, two in that of Dr. Radford, one in that of Dr. Denman, one in that of Dr. P. Bissel, one in that of Dr. Dewees, one in that of Dr. Teallier, &c. According to the modest intimation of Dr. Charles A. Lee, all these and many others must have been

deficient in "*care and skill*," and then guilty of making dishonest reports to shield their reputations.

Could a man place on the pages of our medical literature, statements or intimations more wantonly unjust, or better calculated to defeat the ends of justice? In nearly all the cases of inversion occurring at the time of delivery, the placenta has been found adherent; and in several of the cases, the inversion occurred with the same pain that expelled the child. Will Dr. Lee, or any one else inform us how much "*care and skill*," the physician must have to enable him to know before the child is expelled, whether the placenta will remain adherent or not, or whether the uterus is *about to be expelled with the child*? The facts on record are abundantly sufficient to satisfy every candid mind, that numerous cases of inversion have occurred strictly *spontaneous*, that is, without any interference whatever on the part of the attending physician.

Dr. Lee himself, acknowledges *twenty-three* cases of this kind among those quoted in his article. Hence, instead of assuming that the existence of an inversion necessarily implies want of "*care and skill*" on the part of the attendant, every just rule of criticism would require us to assume just the reverse, it being a universally acknowledged maxim, both in law and morals, that every man must be presumed innocent until he has been clearly proven guilty.

3d. The third and last circumstance that we shall name as having a tendency to obscure this subject and increase the difficulty of arriving at the truth, either legally or scientifically, is the very general assumption, on the part of writers, that all inversions of the uterus must be commenced if not completed either at the time or within a few hours after delivery. Thus Dr. C. A. Lee, in the article already alluded to says: "*In all cases there can be no doubt whatever, that the first step in the process took place at or near the time of delivery.*"

Of course, the necessary inference from this assumption, is, that in all cases in which the inversion is not detected until some days, weeks, or months have elapsed after the delivery, the attending physician has been guilty of gross carelessness or want of skill, in the management of the case. Neither Dr.

Lee, nor any one else denies the fact, that there are many cases of inversion on record, that were not detected or known to have existed until a period of time varying from three days to fifteen or twenty years after the last delivery. And not only so, but in many of them, no symptoms are known to have occurred which afforded the least indication of an inversion, until several days or weeks had elapsed after the delivery. Thus in the case reported by Dr. J. P. White, as occurring in the practice of Dr. Mackay, of Buffalo. So little did the symptoms indicate any trouble soon after labor, that Dr. White says: "This was probably spontaneous; *it certainly was not suspected until three weeks after labor*, and seemed the result of violent bearing down pains, which were promoted, if not induced by imprudent exertions on the part of the patient." Again in the case reported by Dr. W. J. Squire, in the *Provincial Med. and Surg. Journal*, Vol. 1, there was not a symptom indicating the slightest displacement during the first eight days. There was neither hemorrhage, unusual vaginal discharges, nor fullness on bearing down, but on the evening of the eighth day, being quite well, the patient dressed and got up. This was followed by slight flowing, and two days after, while up, the flowing recurred more profusely, and from that date green vaginal discharges with periods of hemorrhage continued with well marked indications of inversion, until the 21st day, when the inversion was detected by a vaginal examination. Commenting on this case, Dr. C. A. Lee, with his accustomed coolness of *assumption* says: "This case, though called spontaneous, is doubtless to be ranked with those where inversion *is begun* by traction on the cord."

If the inversion was begun by traction on the cord, it must have been by indenting the fundus at the time of delivering the placenta. If the fundus was then indented or depressed so as to commence the inversion, and remained in that condition during the eight days that the patient remained quiet, as supposed by Dr. Lee, it is evident that the uterus must have remained all that time, also in a state of atony or complete quiescence, because, if the usual contraction and involution of the organ had been progressing during that time, the depressed

fundus must of necessity have been replaced, or else grasped by the contracting body, and forced on the complete inversion. If the uterus did remain *uncontracted* so as to permit a continuance of the depression, what prevented a continuous hemorrhage? How, with the uterus in a state of atony and the fundus depressed could the patient, not only be free from hemorrhage but also free from any unusual vaginal discharge, and well enough to dress herself and get up? Again, if it is possible for the uterus to remain after delivery, eight days in so quiescent a condition as not to disturb a depression of the fundus produced by traction on the cord, why would not the same condition permit the pressure of the abdominal viscera, aided by the action of the abdominal muscles, to commence a depression, *de novo*? It is plain to the reflecting mind, that the same atonic condition of the uterus that would allow a depression of the fundus to remain in statu quo, from one to three weeks, would also allow a depression to take place *de novo*, during any part of that time. Hence, we claim that it is contrary to every rule of philosophical inquiry, and equally contrary to every principle of justice to *assume*, without proof, that because an inversion is discovered to exist at some period of time more or less remote from the date of delivery, that it must necessarily have begun at the time of such delivery. Besides the cases reported by Dr. J. P. White, and Dr. W. J. Squire, in which the inversion was discovered some time after delivery, others still more striking have been reported by Ana Baudeloeque, Skae, H. Davies, Teallier, and Fisher. Viewing the subject of *inversio-uteri* in its medico-legal aspect, the very important question arises: shall we with Dr. Lee and others, *assume* that the existence of an inversion is *prima facie* evidence of mal-practice—that the majority of those who have reported cases occurring in the practice of respectable members of the profession, have either omitted or misrepresented the facts, for the purpose of shielding the reputation of the practitioner—and that in all cases, inversion must necessarily *begin* at the time, or within a few hours after delivery, whether there is any evidence of such beginning or not? Or shall we take the facts and cases as they are presented to us

on the pages of our Medical Literature, allowing each respectable member of the profession who reports a case, the same credit for candor and integrity that we claim for ourselves, until he is in some way clearly proven to be destitute of those desirable qualities.

We think there can be but one answer to these questions among right minded men. The latter question clearly indicates our duty, whether as a witness upon the stand, a statistician, or a simple scientific investigator.

Acting on this rule, we have patiently examined all the reported cases of inversion within our reach, with a view to determine *when* and *how* they occurred. We find them capable of being arranged into three classes.

1st. Those that are known to have occurred at the time of the delivery of the placenta.

2d. Those that occurred after the delivery of the placenta, and before the usual time for the muscular contraction of the uterus to cease; that is, within four days after delivery.

3d. Those that were not known to exist until after the ninth day from the delivery.

It will be observed that we include no cases supposed to have occurred between the fourth and ninth days after delivery; simply because we have found none such upon record. This is a fact worthy of careful attention, as it relates to a period of time after the uterus, in ordinary cases has ceased to diminish by active muscular contraction, and during which the process of involution is actively progressing. In the first class of cases which embraces about three fourths of all those on record, adhesion of the placenta, either partial or complete, seems to be a constant accompaniment.

The views we entertain in regard to the mechanism of the cases of inversion belonging to the several classes named, are fully explained in the following testimony, given in the case of Dr. A. Fisher *vs.* H. O. Stone.

CIRCUIT COURT—AFTERNOON SESSION.

Dr. N. S. Davis recalled by the plaintiff, and further examined by Mr. Roberts as follows :

Q. You are still practicing medicine, Doctor, and still occupied with the said University ?

A. Yes sir, I occupy the Chair of Practical Medicine there, and Clinical Medicine in the Hospital. I have two distinct duties to perform ; one is to teach Practical Medicine in the College, and the other, what we call Clinical Medicine at the bedside of the patient in the Hospital.

Q. Have you ever seen any other case of inversion of the womb besides this ?

A. I have seen one other certainly complete, and one partial.

Q. How many degrees of inversion of the womb do you make, and what are they ?

A. I consider there are three degrees of inversion. One of indentation. Indentation is a depression of the fundus of the womb, not sufficient to be grasped by the other parts below. Partial inversion is that in which the process of inversion is carried far enough for the fundus to be within the mouth of the womb, at, or actually engaged in it. The third degree is where the whole body of the womb is without the os or mouth. I include the neck, except that which is folded immediately at the mouth.

Q. State under what conditions in your opinion, inversions usually occur ?

A. I think inversions usually occur under three essential conditions of the womb. The first is that which takes place at or immediately after delivery. By immediately after delivery, I mean that which takes place at the expulsion of the after-birth. I think that when inversion occurs at that time, it is produced by a combination of forces. As the head and body of the child pass out of the womb, they necessarily cause the mouth to be widely dilated, and at that act, as the child is expelled, it is as widely dilated as the size of the body itself, or more widely. Then its diameter is as great as that of the body of the womb. In the act of expulsion, the final expul-

sion of the child, which is the result of contraction, all these fibres or parts of the womb which would diminish its longitudinal or vertical length are contracted, while those that are circular, or would contract its diameter below, are relaxed and passive. It is well known there are two distinct modes of action in the womb, that usually at the commencement of labor, or its early stage, both of these acts exist; that there is a contraction of what we call the longitudinal fibres which are described by the most accurate anatomists as a broad band extending from the neck over the fundus, and down the posterior side near to the neck again. One action, is the contraction of this band, together with the oblique and concentric layers of fibres, that more immediately surround and attach to the Fallopian tubes which are at the upper and back part of the womb. Explaining it by a Blackboard is a very familiar mode of doing it. [A Blackboard was here brought into the Court Room, upon which the witness drew two diagrams. The first representing the impregnated uterus immediately prior to parturition. The second representing it with the os fully distended at the moment of delivery.]

Witness. I have drawn there two diagrams. This first one is intended to represent the womb in its development before the foetus is expelled. I do not pretend to exact accuracy in mathematical length and breadth, but to represent the outline of the womb at its full period of development, with the mouth here a little dilated as in the early stage of labor. The other one represents the womb at the time the child is expelled from it. According to the representation, suppose the neck of the womb was here, [Indicated]. When it is completely developed it is lost in the extension of the organ. It only has a neck in the unimpregnated state. These fibres commence at the original neck of the womb, and pass over the fundus down to near the same point on the opposite side, and are spread out so as to reach nearly from the Fallopian tube on the one side to that on the other. There are fibres here, [indicated.] running in various directions; some obliquely down towards the mouth, others obliquely towards the center, and each side. Then there are other circular fibres more interior and interla-

cing in every direction in the more interior layer of the substance of the womb. When labor has commenced, it is usually the case, that all the fibers of the womb contract with each pain periodically. The result is the longitudinal fibres draw down the fundus with these oblique ones; they contract the fundus in every direction, hugging down on the child. This pushes the child, and the waters with it down to the mouth, but the mouth and the circular fibres are found to contract at the same time, so that each pain will hug the head, or parts that come down there; or if the finger is inserted to find out what is going on, you will find that with each pain it compresses the finger, but as it relaxes this will become softer, and more dilated. As the labor progresses the longitudinal and oblique fibres seem to master the circular ones, and eventually, as the contents and the water are crowded down here, and begin to appear through the opening it dilates little by little with each pain.

After a while the contraction of the circular fibres becomes more feeble, and the mouth widens each way until it admits not only the waters, but the head of the child, to become engaged in it. The circular fibers now lose their contractility for the time being, and allow the mouth of the womb to become entirely relaxed. The longitudinal and oblique fibres, however, continue to act with increasing force, aided by the voluntary efforts of the patients, until the child is expelled from its cavity. In examining the cases of inversion that are on record, I find that in a considerable number, the placenta and uterus have been expelled with the same protracted and severe pain that expelled the child; thus accomplishing the inversion before the attending physician could have the slightest opportunity to interfere with it.* I can best explain the manner in which such an inversion is produced, by recurring to the figure upon the black-board representing the uterus as the child is being expelled from it. The placenta being usually attached to the inner surface of some part of the body or fundus of uterus, and possessing no power of contraction itself, in

* See cases reported by Denman, Robert Smith, Walter Channing, E. Fisher, and W. L. Sutton.

ordinary cases of labor, the last pain that finishes the expulsion of the child is usually accompanied by so great a contraction of the whole fundus and body that the placenta is detached. Hence, in ordinary cases we find a gush of blood following the child and immediately after, the placenta either partially or wholly detached lying here in the mouth of the womb and sometimes in the vagina. But suppose the placenta attached here to the fundus of the womb, to be unusually adherent,* so that the contraction of the longitudinal and oblique muscles of the fundus does not detach it; you easily perceive that the strong contraction of the broad longitudinal layer following down the exit of the child, would of necessity fold the adherent placenta upon itself, dimpling the fundus in with it, while the strong pressure of the abdominal muscles from the straining of the patient at the same moment would be sufficient to carry the depressed fundus rapidly on to complete expulsion. Such is the mode of inversion when it follows immediately the expulsion of the child, and by the same protracted pain.

But the larger number of cases on record are described as occurring during the first pain that succeeds the expulsion of the child, varying from five to thirty minutes after the latter event. In all these cases the placenta seems not to have been detached with the pain or contraction of the womb that expelled the child. We must hence suppose it remains attached here to the inner surface of the fundus, until the next pain or contraction. To explain these cases, I shall simply suppose that the neck and mouth of the womb remain in the same state of relaxation as when the child was being expelled from them. That while thus relaxed at the mouth, and the placenta adherent to the inside of the fundus, another pain comes consisting of the contraction of the longitudinal broad muscle over the fundus, and the oblique ones connected with the fallopian tubes, with the simultaneous contraction of the abdominal muscles and straining of the patient, precisely as when the child was expelled. By this process, the fundus is drawn down, doubling

* See cases in Ashwell on Females, pp. 402, 410 and 411. Also in Churchill, p. 373. Also a case by D. H. Storer, in New England Medical Journal for 1842. Another by P. Bissell in Transactions of New York State Medical Society for 1859, &c., &c.

the adherent placenta upon itself, aided by the full force of the abdominal pressure above, with no resistance from the relaxed neck and mouth below, until the placenta and womb are both expelled together ; constituting a complete inversion. By such a combination of circumstances, the inversion, whether partial or complete, may take place either immediately following the expulsion of the child, or at any succeeding pain while the placenta is adherent and the mouth and neck remain relaxed.

It will be seen by the foregoing explanations, that we regard the coincident presence of four things as necessary to the production of inversion during the expulsion or delivery of the placenta, namely : a perfect relaxation of the neck and mouth of the womb ; an adherent placenta ; an active contraction of the broad longitudinal layer of muscular fibres over the fundus ; and an equally active contraction of the abdominal muscles making a strong downward pressure directly upon the fundus of the womb. These four circumstances existing coincidentally, appear to me to have produced a large majority of the cases of inversion on record spontaneously, that is, without any interference on the part of the attending physician or midwife. If while these circumstances co-exist, the attendant makes traction on the cord or in any other way exerts a downward force upon the adherent placenta, it will, of course facilitate the inversion. On the other hand, if these circumstances do not co-exist ; if, for instance, instead of entire relaxation of the neck and mouth, all parts of the womb contract naturally as the child passes out of it, the circular fibres of the lower part of the body and neck will contract the lateral diameter simultaneously with the contraction of the fundus by the longitudinal fibres—the consequence of which will be that the fundus being supported by the well contracted neck and lower part of the body, cannot be inverted by any ordinary force of traction applied to the cord. Indeed, the cord may be torn off, as has been done in several instances, without producing any degree of inversion. Hence, we cannot agree with those writers who represent “ pulling on the cord,” as the most common cause of inversion ; first, because there is

no positive proof that any such traction was made in more than twenty-five per cent of the whole number of cases on record; and second, because such traction, when made, could only be effectual as an incidental aid to the other circumstances we have mentioned. The foregoing explanations relate only to the first and most numerous class of cases of inversion, that in which the accident occurs during the delivery of the placenta or afterbirth.

But I have said that there were two other classes of cases on record, and consequently two other methods by which inversion may be produced. Both of these occur after the expulsion of the placenta. The one class includes all such cases as occur between the expulsion of the placenta and the fourth day afterwards, while the other includes those that appear to have taken place at some period after the ninth day from the delivery. So far as I am able to form an opinion from a careful study of the cases belonging to the second class, they result from a direct downward pressure exerted on the fundus of the womb, while the whole organ is in a state of atony or relaxation after the placenta had been expelled.* It is well known to every experienced practitioner, that the womb may contract so as to expel the child and the placenta in the natural manner, and yet, at a subsequent time, varying from half an hour to three days, perhaps, the womb loses its contractility and becomes again relaxed. This will be likely to be attended by a renewal of hemorrhage, unless prevented by a large coagulum of blood in the uterine cavity. In a time varying from a few hours, (I think the shortest time mentioned in any case under this head, is nine hours,) to three days after the delivery of the child, the womb is capable of becoming sufficiently relaxed to admit of an inversion. In that relaxed condition, coughing, sneezing, rising upright in bed, straining at stool, or any act by which an active force is thrown upon the fundus, is capable of indenting it and forming the commencement of an inversion. Every accoucheur who

* See case by M. Roussel, in Cazeaux's Midwifery p. 918. Also a case by J. G. Forbes in Med. Churg. Trans. Vol. 35, p. 127. Also a case by E. P. Bennett in the American Journal of Medical Sciences, for 1857. Also a case in Radford's Essay, &c.

has had his finger in the vagina at the time, knows the force with which a cough or sneeze propels downward by the active pressure given to the contents of the abdomen

If the fundus of the womb, at any time before muscular action naturally ceases, and the process of involution begins, (which is supposed to be about the fourth day after delivery,) is in a state of entire relaxation, any of those acts that the patient might make, such as coughing, sneezing, singing, straining at stool, &c., would throw a weight or force upon the fundus sufficient to depress it. When once it has done this, it may go on *gradually* increasing the depression, as the successive acts of the patient bring renewed pressure upon it, until the fundus reaches the mouth or even protrudes through it. More generally when the fundus becomes much depressed, its contact here, (referring to diagram on the black-board) with the inner surface of the lower part of the body, excites the circular fibres to contract, by which the fundus is grasped, as it were, and forced on in the downward direction, until the inversion is rapidly rendered complete.

These processes, in my mind, explain clearly and distinctly all those cases of inversion that appear on record as having occurred after delivery of the placenta, and the patient had been apparently quiet and comfortable from nine hours to two or three days.

They involve essentially three circumstances, namely, a relaxed condition of the womb; an active downward pressure exerted more or less suddenly and forcibly by the abdominal muscles, as in coughing, straining, &c.; and the successive contraction of the circular fibres of the body and neck as the depressed fundus comes in contact with them. Most writers have supposed that in this class of cases, the fundus of the womb was indented during the delivery of the placenta, and the indentation not being immediately removed, the subsequent acts of the patient increased it until it became inversion. But there is no positive proof of such indentation in the history of any of these cases; and we see no necessity of *assuming* its existence at that time, because the same relaxation of the fundus that would allow a simple indentation to remain from

one to three days after delivery, would certainly permit any sudden pressure to commence the indentation, *de novo*, during any part of that time.

We come now to the third and last class of cases of inversion, those that were not known to exist until from nine days to many months after delivery.* To furnish a rational explanation of these cases, it will be necessary, first to state briefly the successive changes that the substance of the womb undergoes from the time of delivery until it resumes its primitive unimpregnated state. We are taught by writers, and the same accords with our own observations, that in ordinary cases the womb continues to diminish by the contraction of its muscular fibres for about four days after delivery. That by such contraction it is diminished from a size sufficient to contain the whole child and surrounding water, to about the size of a child's head with a cavity sufficient to contain only an ordinary hen's egg.

(The witness here drew another diagram upon the black-board, much smaller than the former ones, to illustrate his idea.)

Suppose the active contraction of the womb has brought it down to something like this in comparison with the others. That is, about the size of a child's head. In the natural process this is as far as the simple muscular contraction is capable of carrying it, and then commences what is supposed to be the process of involution. This process of involution consists in a gradual contraction of the womb, by which, what was previously muscular fibres appear to become somewhat degenerated into a substance resembling fatty matter. As this change of structure goes on, and the proper muscular fibres diminish in number, and gradually disappear, the uterus gradually contracts, and keeps on contracting for a time, varying from about two weeks to that of six or eight weeks. Some authors put it, until it is contracted down to very nearly its original normal size, so that its cavity becomes very small, and its substance com-

*See Cazeaux's *Midwifery*, p. 918, case of Ana. and Bodelocque. Also *Medico Chirurgical Trans.* Vol. 35 p. 145, Cases of H. Davies; Also, *Provincial Med. Journal* Vol. 1, case of W. J. Squire; Also, *Dewee's Midwifery*, p. 484, Case of Teallier; Also, *Chicago Medical Journal*, Case of A. Fisher; Also, *American Journal of Medical Sciences* for Oct. 1860, Case of Dr. Mackay, reported by Dr. J. P. White.

pact and hard as in its normal condition. From a careful study of those cases that appear to have been known, as having occurred only at an advanced period after delivery, it seems to me that there is a process by which they can be explained without impeaching the correctness of the diagnosis or the faithfulness of the description given; take this womb, just as it is contracted there right after the process of delivery. We know that the lower part or mouth of the womb naturally remains soft and flaccid, and relaxed for a longer period than the body. Every accoucheur or obstetrician who has had occasion to examine the fundus of the womb through the abdominal walls, finds it within one or two days to be very firm, so as to feel like a hard ball. If he has placed his finger in the vagina for any purpose, to feel of the mouth of the womb, he finds that at the same time that the fundus is contracted to a hard ball, the mouth is still very flaccid and soft, and easily dilated; from this we infer that the fundus undergoes more rapid condensation than the mouth. But suppose the same process that may cause an atony in the lower part of the womb immediately after delivery, continues to influence the womb in other cases at a later period, and that the lower part which is supplied with nerves from what is called the hypogastric plexus, while the fundus is supplied from another source,—suppose this lower part supplied by that set of nerves, fails in the process of involution. It diminishes as far as muscular contraction will carry it and stops. Suppose that the process of involution either actually never goes on, or goes on very slowly while in the main part of the body and fundus, the involution goes on as usual. The result will be that in the course of a week or ten days, we cannot fix the time, for it may vary a week or two weeks, the involutionary process will have contracted the whole fundus down to its original condition. But if the lower part remains in its uncontracted state, it would bring the fundus, instead of the arched shape, seen in the diagram, almost into a horizontal line, shortening it down, so that it would stand on a line very much less than the lower part of the body and neck. [Witness here drew a diagram to illustrate the disproportion between the contracted fundus and

the neck in which the involution had been arrested or retarded.] That of itself would not be sufficient to produce inversion, or even depression of the womb; but when the woman had got to that period, which would be from nine or ten days to three weeks after delivery, according to the rapidity of the change, she would begin to get up, begin to be in an upright position, or should cough much, or it was found necessary to give her physic, and in its operation, should get up and strain at stool, or in passing water—any of these acts with the involutionary process completed or far advanced at the fundus, and arrested at the neck and mouth, would be sufficient with the womb in that condition, to produce a depression and commence an inversion. And that depression once commenced by simply starting here, at the point where the involutionary process was retarded, the whole body would sink down into the vagina, as it were, like the intussusception of the intestines. Intussusception is where any hallow organ, with a muscular coat, a portion of which contracts like a band, and draws it in, so that it is, at a given point, smaller than below, and hence readily become enclosed in the larger part. When it once is drawn in it will go on, until a large part will be invaginated in the part below. Now if the womb here at the junction of the original neck with the body, is contracted more than the part below, that point would be the one where it would begin to depress, and once commenced the forces above, would carry it on more or less gradually, according to the manner in which they were exerted, their frequency in the acts of straining in the evacuation of the bowels, &c., until this upper part would be insinuated into the part below. As it became insinuated into the part below, the vessels would meet a little obstruction, and there would be some slight hemorrhage. The presence of this part crowding on the lower part, would act as a stimulant, and excite more or less contraction in the parts below, which would tend to force on the fundus, when once grasped in them, until it was expelled into the vagina. You might find it merely partial, lying upon the mouth or partially through it, or completely through it, according to the action induced. These are the three methods by which I believe that inversion

of the uterus, not only may take place, but the methods by which I believe it has taken place in the numerous cases on record. [The witness here left the black-board, and resumed the usual witness stand.]

Q. From the statement you received from Mrs. Stone and her mother, how in your opinion, was that inversion caused?

Dr. Davis. Is it allowable for me to state what my opinions were then, and what they were after subsequent investigation?

Mr. Roberts. Both, yes sir.

Dr. Davis. At the time I was called there, I had not turned my attention to a thorough investigation of the recorded cases, so as to inquire into the symptoms and manner in which they had occurred. And at the time I was there, the only explanation that suggested itself to my mind, was, that there had been a depression of the fundus, at some time, perhaps early after confinement—just a simple indentation—and that it had remained so until her getting up; that when she got up, the weight of the abdominal viscera acting upon it, aided by the acts of singing and so on, that they told me about, had increased the depression, so as to finally produce inversion. But on a close and careful examination of the cases, and more careful reflection upon them, there were certain difficulties in that explanation which made it unsatisfactory to my mind. For instance, the supposition that the fundus of the womb could remain indented for any length of time, commencing soon after delivery when it was large, would pre-suppose that the fundus must also remain relaxed for a length of time, and this could hardly take place without an unusual amount of hemorrhage all the while.

Another difficulty in the way was, that in this particular case, as well as in all the parallel cases, the womb itself, as I found it, was hard, and the fundus was firm, as though it had been contracted down to its natural size, and this was inconsistent with the idea that it had been relaxed all the while, as it would be in a case of a dimpling that would continue for that length of time; consequently I began to compare this case with other cases, such as reported by W. J. Squires, in the

Provincial Medical Journal, and others. I also studied more closely the particular phenomena or symptoms that occurred in the several cases. This investigation satisfied my mind, that instead of these late cases, the inversions that are produced by, or start with a simple depression of the fundus immediately after delivery, are those in which it becomes complete, either within a few hours, or a couple of days after the delivery; that the indentation must go on to inversion or in the process of the natural contraction of the womb, the dimpling must rectify itself spontaneously; and that the case of Mrs. Stone, belonged to the same class with the one by Squire. The woman had not had any trouble; the afterbirth came away spontaneously; no hemorrhage; and she remained entirely comfortable until the night of the 8th day, when she dressed herself and got up. That case is reported by Lee; it was originally reported in the Medical and Surgical Journal. After she had got up, having dressed herself, she being then comfortable, there was a slight flowing. Two days afterwards, when she was up, a more decided flowing of blood took place, estimated as the reporter states, to be near a quart of blood. From that time she continued to suffer from flowing, not all the while blood, but either a bloody fluid or a discharge of a mattery substance, and mucous from the vagina. She continued weak, and grew more and more exhausted until the 21st day, when the examination was made, and the womb found completely inverted. This is only a sample of that class of cases. Another is reported by Ane, in which the woman, after going on comfortably as far as anything can be learned from the report, until the 12th day, when she got up, and while straining at stool to get an evacuation of the bowels, symptoms more or less marked, occurred, which soon led to an examination of the womb, when it was found to be inverted. There are four or five other cases of similar character, which had led me to suppose, from the fact that the flowing had ceased, that there must of necessity have been contraction of the uterus. There was no flowing, and no vaginal discharge to indicate excessive irritation in Squire's case, until after the tenth day. It seems to me, there can be no explanation given that will account for the symptoms in that case, except that the process of involution had

gone on unequally, the woman feeling no inconvenience from it until she assumed the upright position, and there came to be pressure upon the parts, when the first step towards inversion took place with a slight flow; still not enough to create alarm, until she is up two days afterwards, when a more copious flow took place; then she began to suffer from pressure below; constant flowing with continued weakness and retention, yet not so marked and decided an obstruction of the passages of urine, or the feces, as to cause alarm. She goes on with these vaginal discharges until the 21st day, when the uterus was found completely inverted. After a close and careful comparison of the cases, I become satisfied that in Mrs. Stone's case, instead of its taking place by indentation at the time of delivery, all the symptoms that they detailed to me, indicated that the womb had contracted, that it had been felt above the pubes, and that finally the hemorrhage had ceased, that she had begun to set up, and that the return of flowing came on gradual day by day, and little by little. From all this, I became satisfied that it belonged to this third class of cases where the womb is inverted by inequality in the involutionary process, by which the fundus of the womb had become shortened and contracted more in proportion than the neck; and not only shortened, but rendered more horizontal instead of arched, thereby allowing the exterior pressure to commence a depression. I must say that after very thoroughly and carefully studying those cases of Ane and Bodelocque and Squire, I cannot see any way to account for a mistake in diagnosis. I credit them, and I believe they are true. In Ane's case, it is reported that he had examined the womb carefully. My reason for crediting these cases, is, that they are reported by men whose veracity has never been questioned, and whose skill is equal to any in the profession, and if we discredit them, we must discredit the whole profession. I remember Desormeroux, case 21st reported in Cross. Desormeroux was a man of considerable eminence as a physician and accoucheur. I remember, and made a minute of Forbes' case, reported in Braithwaite, which was first detected four days after delivery; also, Teiller's case, reported in Braithwaite, ten days after deliv-

ery, copied by Dewees. I credit that case because there is nothing in the narrative, or connected with it, to lead me to doubt it. I remember Forbes' case, 27 and 28 Braithwaite, p. 266, 1850. I think it is the same case which was reported in the Medico-Chirurgical Transactions, and copied by several others. In that case the reporter states that there was no difficulty in removing the placenta; no untoward symptoms; and specifically that after the delivery of the child, and the placenta, both, for three days the uterus was well contracted. I have read Teals' case, but have made no memorandum of it, because that and several others were discovered at remote periods, and no facts to identify at what time they occurred. I cannot remember the names of all these others.

Mr. Van Arman objected to the cases being given in detail by the witness.

After argument by counsel, the court decided that the question might be asked whether inversion might occur under certain circumstances. If yea, what was his reasoning for it; and that reason becomes evidence before the jury, but if he says so because it is reported, it will be of little weight.

Q. Do you think it possible or probable that a womb could become inverted nine days after an abortion at the fourth month.

Objected to as irrelevant. Objection overruled; defendant's counsel excepted.

A. Under the third explanation of inversion that I have given, I think it would be possible. Such a thing would be much less probable than at later periods. The womb at the fourth month usually varies much in different individuals. I have already answered as to whether I think inversion probable nine days after abortion at the fourth month; I think it possible; I think it has occurred; my opinion is the inversion in *Mrs. Stone's* case commenced when *Mrs. Stone* began to get up; about the time that she began to set up in the chair without being lifted up out of bed; about the time she began to set up sufficiently strong to be wheeled across the room. I think that was about the end of the third week, or the com-

mencement of the fourth. From the absence of sudden and severe symptoms and the gradual continuance of the flowing, and the consequence connected with it, my opinion is, that the inversion went on gradually. As near as I can fix upon the facts which would sustain or point to any period of time when inversion became complete, it was at the time or immediately after she was up the last time singing loudly, when I think they stated, she had a more decided flowing. I think the inversion became complete after she was at the piano singing loud and clear. If it had been going on gradually, the symptoms would then have been simply sensations of faintness, weakness or prostration, with a greater amount of hemorrhage than had preceded it during the earlier stages of the inversion. The symptoms are not in all cases uniform, but these would be most likely.

Mr. Roberts proposed to ask the witness whether he had read certain cases, and whether he credited the same. Defendant objected. Objection overruled. Defendant's counsel excepted.

Q. Have you ever read Skae's case, reported in Crosse, and if so, do you credit it?

A. I have read it, and credit it, certainly.

Court. Do you believe it might take place, and become complete at a period $2\frac{1}{2}$ years remote from parturition?

A. I think it is possible; on the third theory that I suppose, we cannot make any limit to the time. It is a question of the condition of the organ, not a question of time.

At the time of delivery, the womb is large, and it is very vascular. The vessels that exist between it and the afterbirth, are also large, and an actual inversion in that condition, if the afterbirth is detached, or partially detached in the act, almost necessarily involves either very great and alarming flooding and loss of blood, with rapid signs of sinking and syncope, or there may be only a rush of blood, and the syncope becomes so quick and so profound, that the blood is stagnated in the vessels, and the flooding prevented; or if the afterbirth continues attached, there may not be flooding, but the shock that is produced, will

be very great. From the size of the womb, the change which it necessarily undergoes, must produce a very alarming condition of the patient—very strong symptoms, such as extreme faintness, great sense of distress, or severe flooding or both.

Mr. Roberts, here put the Hypothetical case, that in addition to the facts early testified to by the witness, "that about the time the afterbirth came away, the patient uttered an outcry as though in great pain, such as, Oh, Dr. what are you doing to me," &c.? Flowing more than ordinary, but not enough to produce syncope, &c., &c. As put to other witnesses, giving symptoms up to 10 o'clock on the night of delivery, would your opinion then be modified, as to whether inversion took place at the time or not?

A. No Sir, it would not, because the fact that the afterbirth was delivered, shows that the vessels were actually ruptured, and the womb being then inverted, and remaining in that condition without being immediately replaced, would have produced inevitable flooding of a very alarming character, or syncope and exhaustion. If it had been immediately replaced, the afterbirth being thrown off, it might possibly have been accomplished, so as to have avoided sufficient hemorrhage to have induced syncope, but then the shock would have been very great. The exclamation you speak about, Oh Dr. you hurt me, is a very common one with women in their first labor; so far as my experience goes with two thirds of all the women I put to bed, especially with the first child, and sometimes with the subsequent one, when the cord is tied and the child carried away, and the finger carried back into the vagina to ascertain where the placenta is, they shrink and say, Dr. what are you doing, or Dr. you hurt me. Such statements are so common at the time we are feeling for the afterbirth, or ascertaining where it is that we regard them of no account. If the uterus were dragged down with the afterbirth still attached, the shock to the system would be such as to produce prostration, coldness of the extremities, failure of the pulse, and all the symptoms of rapid and speedy dissolution, from which the patient might die in an hour, or might recover,

but the shock would be very severe. If the womb was inverted as the afterbirth was detached, it would pour out an amount of blood, that would be excessive and alarming, and would continue to do so until the patient was exhausted, or so perfect a syncope took place as to arrest the blood in the vessels and allow the coagula to form, from which a patient might recover and might not.

As the womb ordinarily contracts in natural labor, it is found that a force sufficient to tear the cord off, will not invert it. I have sometimes made pretty firm traction on the cord, when the womb was contracting well, and seemed in good condition. I have had some cases where the afterbirth was pretty strongly adherent, and rather than introduce my hand into the womb, and finding that the walls were firm, I have made as strong traction as I could without tearing it, and then carried the hand into the womb, and peeled it off with the fingers. I believe the womb to be susceptible of inversion by traction on the cord, must be in a state of entire atony in the lower half of it, or probably the whole of it; but if it should happen that the fundus alone was contracted, at the same time that the lower part was inactive, then the pulling and the contraction would coincide to start the inversion. I can conceive of sufficient force being applied in that way, with the womb in an entirely passive condition to invert it, but not when it is in an actively contracted condition. The way I understand the rule, which I believe is a correct one, is that no traction, except it be very slight, should be made, unless the attending physician is at the same time certain that the womb is in a state of tension, or the walls firm; that is the common practice, I think. I do not know how others will take it, but certainly I understand it to be the common practice, that soon after the child is laid aside, and the cord is severed, the accoucheur, or attending physician takes hold of the cord with the fingers of one hand, and either passes the other up under the clothes over the pubes, so as to ascertain the condition of the fundus of the womb, or he carries the finger of this other hand along the cord up into the vagina, to ascertain whether the same pain that expelled the child, has not detached the afterbirth, and

left it lying in the mouth of the womb, or partly in the mouth, and partly in the vagina, or wholly in the vagina. Either or both these modes are practiced by the same physician. If in passing the finger up into the vagina, and tracing the cord, it is found that the afterbirth is not in the vagina, nor engaged in the mouth of the womb, and there is no flowing to show that it has been detached, the accoucheur acts on the presumption and certainty that it is still undetached. In that state he would make no traction on the cord, except just to hold it in his fingers as a guide to know whether it was moved by the action of the uterus, or not; but he would withdraw the other hand from the vagina, and carry it over the pubes, and make a little rubbing or friction to excite the womb to contraction, or if he had an intelligent nurse by, he might keep his finger in the vagina, watching the progress of things there, and ask the nurse to make a little friction. Sometimes the patient herself is asked to make a little friction there to excite contraction. These things usually bring about a contraction, which we call a pain; the afterbirth is detached, and as quick as it is, out comes a gush of blood; that gush of blood warns the practitioner that the afterbirth is detached. The fingers that hold the cord, find, in just keeping it straight, that the same act that caused the gush of blood, has left the cord slack, and he then makes a slight traction, and if it is already loose, it comes along; or it may be that the force of the pain is sufficient to expel it without traction, and he finds it coming down upon his hand and finger in the vulva, and it comes away without straightening the cord. But more generally the contraction of the womb expels it into the vagina, leaving parts of it still enclosed in the mouth of the womb, and it requires a little traction on the cord or hooking the finger over the edge of it, to bring it away; either of these acts will frequently cause the patient, the vagina being sensitive from previous distension and labor, to complain, "you are hurting me." But the practitioner should not make any traction on the cord, more than barely to straighten it. No force should be applied to it, unless he is confident that the womb is in a state of tension. He should not make traction, when it is in a state of atony. I

have already stated what the symptoms would be of inversion, either by traction on the cord, or by the hand of the accoucheur manipulating for the placenta. I now include manipulating with the hand. If he was manipulating the placenta, it must be with the hand in the womb, if it were still attached, because manipulating in the vagina, could not act upon the placenta. If the placenta is down where you can manipulate upon it in the vagina, it is then already detached, or there is an inversion already existing. But if his hand grasps it in the womb, instead of insinuating his fingers so as to separate it, he might grasp it between his thumb and fingers, and merely pull, and readily pull down the fundus and produce inversion. The symptoms of that would be the same as would occur in any other way; it would be a very severe shock to the patient; inducing sinking, syncope, exhaustion, and signs of dissolution; or if the afterbirth were afterwards finally detached in the act, he would find after this, rapid flowing, until a degree of faintness would arrest it. I think the ordinary attendants would be aware of it, as it would inevitably attract attention, and create the most intense alarm, unless the practitioner was so skillful that he could put it back before they had found out that anything serious had happened. I think a nurse 30 years of age, a married woman who had borne children, but not living children, having about eight year's experience in nursing, would be able to feel the womb above the pubes readily. She might not be competent to decide positively, but she would be able to feel the tumor there. She might not be able to decide whether the tumor she felt was a womb or a distended bladder, both occupying the same region. She might have considerable experience as a nurse, and not know the one from the other, unless she knew that the patient had evacuated water regularly, then she would know it was not the bladder. Almost every nurse of ordinary intelligence, knows where the womb is after delivery; they can't help it, in adjusting the bandage they come in contact with it, and in changing the clothes. They detect its existence until it is so far contracted as to sink below the level of the pubes, which is usually after the fourth day, sometimes varying; it may not

entirely disappear from above the pubis for eight or ten days, but that would be very slow. Women who have their first child, *prima paries*, find a lump there, and they don't know what it is; a good many times they have asked me what it was; they have had no experience about it. If inversion occurred along about the third week, I think the process of involution at the fundus would have contracted it to the size that I found this one, and consequently on account of that contraction, would have limited very much the amount of hemorrhage that would have taken place in connection with the inversion; the vessels would have been reduced so small in the fundus, that they would bleed much less freely than at an earlier stage. This involutionary process is sometimes retarded.* It is very variable in the rate of its progress, but the exact causes which produce that variation, we are not able to define. We suppose a lax temperament or weak organic movements, where anything had previously depleted the patient, might be a cause. But the causes are not clearly definable, any more than you can tell why one man, accustomed to a particular mode of exercise will develop his muscles faster than another who seems to follow the same mode; there are different modes with different individuals about their organic processes, that makes them take place in a different ratio, that we cannot explain. The reasons why the symptoms, at the time that this inversion took place, as I believe, did not indicate it more violently, have been already given in the fact that on the theory I have supposed, the fundus had gone on in the process of involution, and consequent diminution of size, so that its vessels were already small, and there was nothing to occasion the rapid pouring out of excessive quantities of blood, so as to induce faintness or exhaustion, as at an earlier period. If it went gradually on, as different successive acts caused pressure to be made upon it, the shock at no time would be great, the smallness of the organ would lessen the severity of the shock, as well as diminish the amount of flowing. If we suppose that the process of involution going on

* Belvin and Duges, say the process of involution may be retarded from TWO to SIX MONTHS.

unequally as I have mentioned, the dimensions of the cavity of the organ, longitudinally would be reduced to the natural one, that is, two or two and one-fourth inches; while the transverse dimension of the cavity, by a failure of the involutionary process in the lower parts, would be considerably larger than that. It might be an inch, or even vary from one to two inches in diameter. It would depend entirely upon the extent to which the involutionary process had been retarded, or the period of time when it was entirely arrested. The circumstance of her actually fainting on the fourth day, when this sinking spell occurred, would not alone alter my opinion, nor the circumstance that they used volatile salts in restoring her; that has no meaning at all. Salts are used for headache, and almost everything. Bottles of hot water to the side and feet would have no influence to make me think there was inversion at that time, because they are simply indication that the patient has coldness at the extremities, or something approaching chilliness. I would want a much more rapid flowing, a severe flowing, as the placenta had already been removed, to think that the womb had been inverted at that time, on the fourth day. I should expect a loss of considerable blood accompanied by syncope, and the womb would have been large enough to have filled the whole of the vagina, if it had not protruded, the womb being on the fourth day as large as a child's head. Independant of difficulty in the acts of urination and defecation, the patient would be inclined to strain, and these acts would have demanded interference to relieve the patient in a few hours. If it lasted but two hours, and she recovered, I think she would have complained of the bearing down pains. I think the womb of the size of the fourth day, could not be contained in the vagina, without producing bad feelings, which the patient would complain of directly. If the womb was inverted by traction on the cord, in removing the afterbirth, and remained inverted so soon after removing the afterbirth, which is usually from ten minutes to an hour after expulsion of the child, it would be much more enlarged than in cases where everything has gone on well; and I don't think a womb in a state of relaxation, within the

first two hours after the expulsion of the child, especially with the afterbirth added to it, could be contained in the vagina. I think if it were a complete inversion, it would necessarily protrude, because the dimensions of the organ itself, at that period of time, with the placenta added, are much greater than the ordinary dimensions of the vagina. If the physician had detached the afterbirth and pushed it back into the vagina, it would have produced flowing, and obstructed the passage, and in addition to that, there would be fœtid sanguineous, mattery discharges; a kind of mixture of bad smelling mucous with blood. That would occur if it were left there two or three days, but not at first. If the attendants did not know it was there, they would know that something was the matter with the patient; that she could not make her water, or that this discharge which was very unusual, was going on. They might not, if it were placed back in the vagina, and sufficiently squeezed to retain it there, positively know that there was an inversion, because the attendants are not supposed to make any vaginal examination, but they would know there were impediments to these ordinary functions, and that the woman continued to have unusual discharges. The woman would not in my opinion be able to be playing on the piano and singing on the 21st day, because I think the inversion continuing to that time, would have exhausted her to such a degree, by the hemorrhages and discharges, that the moment she attempted to get up, the sense of dragging would have been so great that she would have had no ability or disposition to sing. It would not necessarily destroy the appetite, but it would perhaps induce weakness that would impair it. My opinion would not be modified in any way from what I have expressed it, if the nurse had felt the womb at the hypogastrium on the fourth day, only, if I were satisfied that she found it there, it would add to the evidence in my mind, that it was not inverted at the time of delivery or near that.

Court adjourned.

THIRTEENTH DAY, THURSDAY, NOV. 8th, 1860.

Dr. N. S. Davis recalled and further examined by Mr. Roberts.

Q. From the history of Mrs. Stone's case, as you derived it from herself and her mother, state whether in your opinion, negligence or want of skill on the part of the physician in attendance, contributed to the inversion, or whether he was negligent or unskillful, in not discovering it sooner?

A. I did not learn any facts that indicated neglect or want of skill, in the progress of the case.

Mr. Van Arman objected to an examination of the witness, except solely as an expert.

Q. What are the symptoms of indentation?

A. The symptoms that have been found to accompany indentation, I think vary very much. It is sometimes accompanied by an excess of flowing, and at other times by very slight symptoms of any kind. In partial inversion, I mean going forward from indentation in the stage between an indentation and that of complete inversion, there is usually some degree of flowing which varies very much in its amount, feelings of fullness, and usually some bearing down and straining, a dragging sensation. In reference to Leverett's case and others, years after parturation, I can only express the opinion, that there is nothing in the history that is given, showing that they manifested active symptoms. I have met with cases of hemorrhage that I supposed would be classed as secondary hemorrhage, at all periods, from two weeks to three months after delivery. Secondary hemorrhage is supposed to be occasioned in many instances by simple relaxation, want of tone in the tissues of the womb. In Mrs. Stone's case, from the facts that they stated to me, I supposed that there was a degree of laxity of the fibres of the womb, that predisposed to flowing. I inferred that from their statement to me, that she had had an abortion previously, and partial prolapsus, and supposed that the uterus was in an irritable condition or predisposed to hemorrhage. I placed some importance on that abortion, from the fact that women who have been known to abort or miscarry, so far as my observation goes, are invariably more disposed to hemorrhage and vaginal discharges, at any subsequent period after delivery, than those who had not. The question how long a physician should wait before making a

vaginal examination in a secondary hemorrhage after delivery, depends in my opinion entirely upon two questions. That is, the profuseness or rapidity of the hemorrhage on the one hand, and on the other, whether it is accompanied by symptoms such as bearing down, fullness low down, pressure upon the urethra, or obstructions to the discharges. A simple moderate hemorrhage alone without other symptoms, I should infer, depended upon general causes, or simple relaxation, and confess that I should not be disposed to insist upon an examination without using the ordinary remedies for a length of time that would depend entirely upon their effect. If in using them, the hemorrhage seemed to cease, or nearly so, I should expect it was going to cease entirely, that is, upon the supposition that there were no other marked symptoms. If I did not make any impression upon it, and it continued steadily, I should be disposed to insist upon an early examination. Consequently, it is totally impossible to fix upon a period of time that the practitioner would be justified in waiting. He would be obliged to be guided by his own judgment and the accompanying circumstances.

DIPHTHERIA.

By T. J. PEARCE, M. D., of Decatur, Indiana.

Editors Examiner.—The late fearful malady known as *Diphtheria*, having prevailed in our vicinity more or less for the last two years, and having in its ravages taken as one of its victims my last and only son, and very nearly destroyed our only remaining child, a little girl of five years old, I will briefly give you the result of my observation as to its general character, and most appropriate treatment.

1st. I think Diphtheria belongs nosologically to the family of *Scarlatina*, and as such, consists pathologically in a blood change.

My experience teaches me that it is not contagious ; and yet in certain conditions it may be propagated by contagion.

I am satisfied my little daughter took it without any contagious bearing in the case, and I am equally certain that my son took it by contagion from her.

The Diphtheritic deposit or adventitious membrane so generally present in some part of the faucal structure, I view as belonging in its formation to the healthiest pathological stage of the disease; especially so in the malignant variety of Diphtheria. As when the blood change passes the point of this *plastic deposit*, the cases are generally hopeless, and this brings us to notice the outlines of the treatment. And here I would say that I think we are prone to look too much to the *effects* of the disease, the throat affection, and not pay enough attention to the disease itself, the blood change. I think the too frequent *swabbing*, has been in many cases a fruitful source of mischief. By this, the nervous little sufferers are not only thrown into frequent spells of the greatest bodily and mental excitement, which in all blood diseases should be avoided, but the tender and swollen parts are farther irritated and made worse instead of better. And yet we would have the parts *cleansed* of the foul secretions by the moderate use of gargles, or the *probing*, where it can be done without too much risk of increasing the general and local difficulty. But our principal reliance is in the full and free use of the constitutional remedies. And to fill this indication we know of no course better than the free use of Chlorate of Potash, Mur. Tinct. Ferri. and Sul. Quinia. The Mur. Tinct. Ferri. I think is generally given too sparingly. As a combined local and general agent, I would call attention to Sul. Cupri. as an emetic, whenever it is administered in the course of the disease, also as a gargle and an internal agent in small doses. When given as an emetic, we not only get its prompt effects in that way, but it acts as a valuable local application in passing thoroughly over the mucous membrane of the fauces and pharynx. And in the croupal form (which I consider strictly, not a *variety*, but an incidental condition) of the disease, I think there is no remedy which promises more success than Sul. Ferri. as an emetic. The various remedies used as local applications, Nit. Silver, Tinct. Iodine, Tannic Acid, Capsicum, Sul. Zinc, *Gunpowder*,

Alum, etc., each may doubtless do good in its *time* and *place*, but I think their frequent use with the sponge, may often do much harm. As an external application when there is edema, or enlargement of the parotid or cervical glands, I have found nothing better than the free use of Tinct Iodine. A domestic poultice of equal parts of *Tar* and wheat bran may often prove servicable.

But I look upon *Malignant Diphtheria*, when it, in the blood degeneration, has passed the point of forming the *organized deposit*, and becomes clothed with the usual symptoms that then attend it, as necessarily fatal, and to ease the little sufferer's passport from time into eternity, as the highest duty we can then perform.

MERCY HOSPITAL.

Service of Prof. N. S. DAVIS, M. D., Prof. of Practical Medicine and of Clinical Medicine.

(Reported by FRANK W. REILLY, Senior Class Med. Depart. Lind University.)

Traumatic Spinal Curvature—Paraplegia and Anæsthesia.

—GENTLEMEN :—Our time this morning will be occupied principally—perhaps exclusively—with a case of injury to the spine, with loss of muscular action—paralysis and sensation—not total, however, at this time, for the patient is able to control motion to some extent, and, if supported, can even walk across the room. Some degree of anæsthesia yet exists in one, if not both extremities, though to a very considerably less extent than immediately after the accident.

The history of the case is briefly as follows :

The patient, a young girl about seventeen years of age, was sitting sewing in a room, with her back obliquely to a partition wall, separating another room, in which persons were handling a gun. This being accidentally discharged, the ramrod from the barrel, was driven partially through the wall into the patient's back, impaling her upon the point. The wound thus produced, was situated between the inferior angle of the scapula and the corresponding dorsal vertebræ, in a forward and lateral direction, tearing the latissimus dorsi and trapezius

muscles. The rod was found to be broken, on withdrawing it, and the wound carefully searched for splinters, &c., which were supposed to be all removed, but both the patient and her father insist that, subsequently, a fragment found its way into the intestine, and was passed by the rectum. I doubt, however, from the situation of the wound, and the very serious and extensive lesion, this would necessitate, if such were the case. Still it is not impossible that a splinter might have been deflected by a rib, partially penetrated the colon, which, if the stomach was empty, might rise sufficiently high to receive it, there become impacted in such a way as to prevent the formation of an opening between the external wound and the intestine, and after a time have supplicated through, and been discharged. The probabilities, however, are against it.

The accident was followed by paralysis, and the patient remained in a precarious and helpless condition for some time; confined to bed, the usual gangrene of the nates and hips occurred—bed sores, one of which is not yet healed. This occurred something over a year since, and though the wound healed gradually and kindly, and the usual organic functions were in a great degree restored, she has been stationary for some three or four months past. During her confinement to bed, although no trace of injury to the spine can be discovered, such a degree of lateral spinal curvature took place as to alarm herself and friends, and induce her to seek treatment here. The vertebral column does not seem to have been directly injured—the rod evidently having struck outside the bodies of the vertebræ and pursuing the course before stated. The paralysis and loss of sensation in the extremities, is due to the pressure of lymph, effused into the sheath of the spinal cord and nerves, during the inflammation of the adjacent parts. The lateral curvature is best explained by the disturbed equilibrium of the muscular forces; those on the wounded side yielding, and the antagonistic ones contracting with a possibly increased vigor. And here it may be as well to review briefly the subject of spinal curvatures. These are of two kinds; the first and least serious—the true simple curvature in which the curve is the segment of the arc of a circle, either large or small,

according to the degree of curvature. The other and graver, not a curve at all, but an angle, either greater or less according to the extent of the column and number of vertebræ involved. These may both occur in various directions, either anteriorly, laterally or posteriorly, though this last is of very rare occurrence. I have never seen a case of spinal curvature with the convexity of the curve looking forwards, (constituting a true posterior curvature,) and you will very readily see how difficult this would be. In angular curvature, as it is termed, the disease consists in the destruction of parts of the vertebræ, and while these are spongy and porous, and separated by cartilage, anteriorly, posteriorly, you will remember, the structure is dense and hard from the formation of processes, &c. Hence, posterior curvatures are rare from the greater ease with which caries, necrosis, ulcerative absorption, &c., progress in spongy porous bones, cartilages, &c. The disease, *e. g.* necrosis or caries, will commence in the body of the bone, or the intervertebral substance will be destroyed by ulcerative absorption, just as the cartilage of the knee joint may be destroyed, bone exposed and attacked, and when the bodies are destroyed wholly or partially, the column shuts down forward, and the angle is produced; as when by the partial withdrawal of the middle finger you allow the index and ring fingers to approximate. (*illustrated with the fingers*). The spinous processes jut out, and the whole appearance is too plain to be mistaken. This destruction of the bodies and consequent tipping of the spinal column forwards, causes the patient to instinctively throw his head backwards in order to keep his balance, and thus we get the S form of spine in angular curvature. It is easily recognized, and you will not be apt to mistake it. Such cases are common enough among scrofulous children; and as one, now and then, grows up, you will occasionally meet on the streets, persons with the head thrown back—fixed, and thrown back, the neck apparently very short, shoulders high, and thrown forwards, sometimes up to the ears almost, an angular protuberance between the scapulæ, and the body disproportionately short, compared with the extremities, and this last most noticable, usually, in the superior extremities,

so that they seem to be unusually long-armed. I remember three such cases of ladies in my own practice.

The disease very rarely occurs in adults; mostly in children, in whom it commences usually by slow inflammation, ending in ulcerative absorption of the intervertebral substance, after which the bodies are attacked, and are gradually absorbed. The adjoining bodies now fall together; that organ in which resides the wonderful power, the *reflex function*, by which the automatic movements are regulated, and by which the medulla oblongata and other portions of the brain, whose office it is to generate and co-ordinate the agency of voluntary motion, are enabled to transmit their power to the most remote extremity, this telegraph of the human system, the spinal cord, is compressed, the medium of communication is cut off, and all that part of the system supplied with nerve fibre below the point of compression is bereft of sensation and of voluntary motion—not suddenly, without the compression is sudden and marked; but at first the lower extremities get clumsy, the child trips and stumbles easily, is restless at night, cries out often, and without apparent cause; then the mother or nurse notices that the child stoops, complains when taken hold of; gets alarmed and sends for the physician, who finds, usually, the characteristic angle, with its row of processes sharp and prominent as the knuckles of a clenched fist.

If this is taken in hand at once, much may be done to remedy the complaint. The horizontal position should be strongly insisted upon,—let the child roll and toss and tumble as much as it chooses, but keep it horizontal. A gentle uniform counter-irritant will be found beneficial; usually a pitch plaster, (*Pix abietis*, Ph. U. S.,) with points of tartarized antimony upon it, will suffice. The diet and internal treatment will also demand your attention. The first should be gentle and nutritious, and the second the usual treatment of scrofulous inflammations. All excitement, stimulants, &c., should be avoided; and usually, if the treatment is commenced sufficiently early and faithfully followed, the disease may be arrested in from six to eight weeks, during the latter part of which the confinement to the horizontal position may be relaxed,

and the patient allowed to sit up an hour or two each day. The employment of an apparatus to relieve the affected portion of the spine of the weight of the head and shoulders, by transferring it through the instrument, to the pelvis, will now be found advisable; and by the use of this and a due regard to habitual position and subsequent health, the disease may not only be arrested and cured, but in many cases the deformity will not be perceptible. In most cases, however, the disease is allowed to make too much progress before it is interfered with; and in such, the destruction of the bodies, frequently to such an extent as to cause compression of the cord, and the consequent change of position cannot be remedied; though by the arrest of inflammation, use of instrument, &c., the sufferer may be restored to a comparative degree of health.

Another variety of angular curvature, and one much more usually fatal and distressing than the one we have just been discussing, arises, not from simple scrofulous disease, but is the result of tuberculous deposit in the bodies of the vertebræ; following which we have the slow development of caries, the bodies growing soft, the inflammation aggravated by pressure, absorption taking place, and in from three to six months, usually, after patient begins to complain, there will be formation of an abscess, which will depend upon the situation of the diseased bone, for its external manifestation. Occurring upon the anterior aspect of the bodies, if high up its discharge externally, will be slow, finding its way out either through the intercostal spaces, or the cruræ of the diaphragm and down along the psoas muscle, where it may appear in the lumbar region, or under Poupart's ligament in the groin. If the lower dorsal and lumbar vertebræ are involved, the abscess may point over the crest of the ilium, or under Poupart's ligament in the upper part of the thigh.

I have said that this variety of spinal disease is usually fatal, and you will find it as uniformly so as is pulmonary tuberculosis. It will usually run its course in five or six years, though as in other varieties of tuberculosis, the patient's life may be protracted by judicious treatment beyond this. But it will surely, no matter how gradually, wear the patient out by the

constant drain upon the system. Occasionally the abscess and its channel will contract, the discharge cease, and the patient and friends will flatter themselves that a cure is being effected ; but sooner or later the discharge will be renewed, and abscess distend, and this may occur again and again, until in the advanced stages, hectic fever, night sweats and colliquative diarrhoea supervene and carry off the patient. I should have mentioned that your diagnosis may be materially assisted by an examination of the other organs of the body, when you will usually find tuberculous deposit to exist in the lungs.

Simple spinal curvature rarely depends on disease of the vertebræ ; but is almost invariably the result of deficient muscular action. The position, construction and offices of the spinal column are such as to demand a strong well-balanced muscular power, constantly at work in order to maintain it in its symmetrical integrity and usefulness. The motions of the head, shoulders and arms, constantly changing, and in that change affecting the spine, upon which their weight is superimposed, would speedily destroy these conditions, should this muscular power be, from any cause, illy balanced. And one of the most common causes of this disturbed equilibrium is to be found in the compression of dresses ; the waist of the dress comes over the bellies of the associated erector spinæ muscle, at a point where it should have the greatest amount of contractile power ; this pressure impairs action, the muscles lose their force, grow weak, allow the spine to yield to the forward motion of the head, and the child—for it is noticeable usually only in children—begins to get round or stoop-shouldered—hunch-backed ; and all the antagonistic muscles of the abdomen, the psoas and the quadratus, will serve still further to increase this.

Another very common cause of curvature is to be found in an unequal exercise of the superior extremities ; and in habitual faulty positions, familiar examples of which may be found in almost every school girl or boy ; the resting of the head on one arm on the desk, day after day, bending over books, with the muscles of one side unduly extended, and of the other relaxed ; standing with the weight of the body thrown on one

BOOK AND PAMPHLET NOTICES.

ON DISEASES PECULIAR TO WOMEN, including Displacements of the Uterus. By HUGH L. HODGE, M. D., Prof. of Obstetrics and Diseases of Women and Children, in the University of Pennsylvania, with Original Illustrations. Philadelphia, Blanchard & Lea, 1860.

This is a good sized octavo volume of 469 pages, done up in the best style of the well known publishers, Blanchard and Lea. It is divided into *three* parts. The first contains twelve chapters, devoted to a consideration of *Irritation* of the *Uterus*, its causes, symptoms, complications, consequences, and treatment. The second, embraces nine chapters on the various displacements of the uterus, and their treatment. The third, embraces three chapters on "Sedation of the Uterus." The author's style is clear, concise and pleasing; while the doctrines he inculcates are eminently practical. Every practitioner will find the work really a valuable addition to his library. It is for sale by Keen & Co., Booksellers, Chicago.

AN ELEMENTARY TREATISE ON HUMAN ANATOMY. By JOSEPH LEIDY, M. D., Prof. of Anatomy in the University of Pennsylvania, &c., &c., with 392 illustrations. Philadelphia, J. B. Lippincott & Co.—1861.

This a good sized octavo volume of 663 pages, published in superb style. It adds another to the many elementary treatise or text-books, on human anatomy, that have been issued from the Medical Press during the last six or eight years. From a hasty glance at the contents of the book, together with the well known ability of the author, we should think it admirably adapted for use as a text-book for the student. Its arrangement is simple, its style direct and plain, and its illustrations excellent. For sale by S. C. Griggs & Co., Chicago.

SIXTH REGISTRATION REPORT OF SOUTH CAROLINA; containing the report of Births, Marriages, and Deaths, in the State for the year ending Dec. 31st, 1859. By ROBERT W. GIBBS, Jr., M. D. Register.

This is a volume of 116 pages, mostly occupied with carefully prepared tubular statements in reference to the three

topics above named. The report is enhanced by giving the statistics of the two races (White and Black) separately. Dr. Gibbs has performed his task well; and we hope the time is not far distant when similar reports will be made annually in every State of North-America.

THE POCKET ANATOMIST; being a complete description of the Anatomy of the human body, for the use of Students. By M. W. HILLES, formerly Lecturer on Anatomy and Physiology at the Westminster Hospital School of Medicine, &c. Philadelphia; Lindsay and Blakiston. 1860.

This is a small duodecimo volume of 263 closely printed pages, designed chiefly as an aid to the student in preparing for his examinations.

For Sale by S. C. Griggs & Co., Chicago.

THE PHYSICIAN'S VISITING LIST, DIARY, AND BOOK OF ENGAGEMENTS, for 1861. Published by Lindsay and Blakiston, Philadelphia.

This very useful pocket day-book, &c., &c., is too well known to the profession to require description or comment.

For Sale by S. C. Griggs & Co., Chicago.

SELECTIONS.

Thoracentesis.—As we progress in the practical study of thoracentesis, we are more and more powerfully impressed with its innocuousness and the facility of its performance. We are now aware that it may prove beneficial even in the case of pleurisy consequent upon tuberculosis. Mr. Aran's general practice is to tap the chest, whenever the effusion is copious or increases with rapidity. In the latter case, he marks upon the skin with nitrate of silver the limits occupied by the morbid secretion, and watches its subsequent progress. If he finds after two or three days that its advance has been considerable, he unhesitatingly taps the chest, even when it is

not entirely filled by the liquid, because further temporization might expose the patient to sudden suffocation. Again, when the effusion even moderate in quantity, does not yield to diuretics and repeated blistering, Mr. Aran has recourse to the same method. When the usual treatment has been unavailingly persevered in for eight days or a fortnight, he performs thoracentesis, and a cure is effected with surprising rapidity. Thus the three indications for thoracentesis are : Considerable effusion ; rapidly increasing effusion ; obstinate effusion, whatever its amount.

Mr. Aran, moreover, cares little about the nature of the morbid secretion. Of course he would be glad to ascertain if it is or is not puriform, but, unable to acquire this knowledge, he takes the most favorable view of the circumstances, irrespectively of the complication, because the wisest conduct to be adopted is to remove a cause of inflammation and thus simplify matters.

One complication, however, gangrene of the lung, appears to Mr. Aran formally to forbid tapping the chest. It is not indispensable to select the most dependent part of the pleura for the puncture. The thoracic cavity is not an inert vase ; the liquid escapes with equal ease, whether the artificial aperture be high or low. The rule to be observed is to puncture the chest in that part in which the lung is most distant from the parietes.—(*Championniere's Journal.*)

Digitalis in Heart-Disease.—Dr. Germain thus resumes an able monograph on the action of Digitalis :

I. Notwithstanding the opinion of Sanders, which, moreover, is in contradiction with all observations before and after him, Digitalis lessens the frequency of the heart contractions.

II. Nothing proves that it weakens the *force* of the heart's contractions ; while theory, and physiological experiments, and my own experience, prove that one of its secondary effects in narrowing of the heart's orifices, is to augment it—consequently there is no danger in giving it in cases where the heart's energy appears diminished.

III. The frequency of the heart's contractions in the case of narrowing of the orifices of the heart, preventing the organ from returning to a normal activity, and keeping up the disorder of the circulation, and digitalis having the power of diminishing the frequency of the contractions, it is not necessary to invoke another mode of action to explain the amelioration which follows, in this case, the administration of this plant.

IV. Nothing is found in the writings of authors to prove that *Digitalis* enjoys diuretic properties, that this reputation given it by Withering appears to have been accepted without discussion by all those who followed him.

V. It is true that in the organic affections of the heart where the employment of *Digitalis* produces an amelioration of the circulation it often produces abundant diuresis, but this diuresis is but a secondary effect, from the return of the circulation to its normal state.

VI. All authors are unanimous in recognizing the powerful action of *Digitalis* on the stomach. In very small doses it stimulates the appetite, but in the doses in which it acts upon the heart, it produces anorexia, even nausea; and may become a dangerous cause of dyspepsia in the greater number of cases.—(*Gazette Hebdomadaire, November.*)

Cæsarean Section.—Prof. B. F. Barker recently performed the Cæsarean operation at Bellevue Hospital, on account of a contracted pelvis, the antero-posterior diameter of the superior strait being only two inches, the cavity of the sacrum filled with a bony tumor. The child weighed nine pounds, and is still living. The mother died on the fifth day after the operation. (*American Medical Monthly, December.*) The Cæsarean section has also been performed twice within the last year, by Mr. Lorthioir, of Lalaing, France; in each case with success. The mothers are living and well. The result to the children is not stated.—(*Championniere's Journal.*)

Method of Shortening some Tedious Labors.—M. de Laffore read to the French Academy of Medicine, a memoir on tedious natural parturition, and an innocuous mode of shortening the duration of labor. The author seeks to demonstrate that one of the chief obstacles to parturition is the resistance which the symphysis presents to the passage of the foetus. Hence, for the purpose of accelerating labor, it would suffice, in most cases, to apply the forefinger upon the anterior part of the cervix, so as to keep the presenting part from coming into contact with the symphysis.

British obstetricians have as long ago as 1837 observed this same difficulty during labor. Drs. Hamilton, Burns and Brien have advised that the anterior lip, which is often constricted and swollen between the head and the symphysis, should be pushed up by the finger in the interval of the pains, and there

maintained until the returning contraction of the uterus drives the head below it. Drs. Collins and Murphy objected to the practice, as likely to produce inflammation of the cervix. Dr. Murphy recommends instead the pressure upon the head which has since been described by Dr. de Laffore.—(*Championniere's Journal*, October and November.)

Tincture of Benzoin for Chapped Nipple.—Some years ago Mr. Bourdel extolled the virtues of tincture of benzoin for the cure of excoriated or chapped nipple. The remedy was applied with a camel's hair pencil, immediately after suckling the child, or oftener, if necessary, and in such a manner as to cover the sore parts with a uniform layer of the liquid.

I have also, says Mr. Moulas, of Douai, since 1854 had recourse to the method recommended by Mr. Bourdel, and have found the tincture of benzoin constantly successful in the cases alluded to. This remedy is particularly valuable, as in the first place the child takes the breast without repugnance; in the second, the tincture leaves, on evaporating, a layer of benzoin on the surface of the nipple, thus affording to the sores protection from contact with the air or with the dress; and lastly the nurse can give the breast without previously washing the nipple, an operation which induces much pain.—(*Championniere's Journal*.)

Oxalate of Cerium in Vomiting.—This article was introduced into medical use, by Dr. Simpson, of Edinboro', about a year ago, to check the vomiting of pregnancy. But more recently it has proved useful in so much wider a field, that it promises to assume a permanent place among the mineral tonics. * * * * When I began to use it, I limited it to cases of advanced pregnancy, which had resisted all the ordinary remedies, such as creasote, hydrocyanic acid, ice, bismuth, &c. I specify *advanced* pregnancy, for in no case have I seen this troublesome symptom appear before the fourth month, without yielding to creasote, or prussic acid, or better still, minute doses of sulphuric acid and brandy. * * * But, as I have remarked, the efficacy of oxalate of cerium appears by no means confined to the relief of vomiting in pregnant women. In the vomiting that often accompanies phthisis, in pyrosis, hysterical emesis, and the various dyspeptic conditions of the stomach, especially in atonic dyspepsia, I have found the effects of this remedy no less encouraging.—*Dr. Charles Lee, in the American Journal of Medical Sciences*, October, 1860.

Out-Door Life for Phthisis.—Dr. Blake, of Sacramento, Cal., speaking of the advantages of the climate of California to consumptives, attributes much to the out-door life which it enables this class to lead, without exposure; and mentions the fact that Indian children domesticated, die in large numbers of phthisis.—*Am. Med. Times*, Nov. 10.

Mania a Potu—Is, according to Prof. Warren Stone properly the acute *delirium tremens*: the chronic form of delirium caused by the excessive use of stimulants, the violence of the delirium being, in the former instance, mainly due to alcoholic blood-poisoning, the tremor in the other more to the sudden privation of a long-acustomed stimulant. *Mania a Potu*, often the cause of sudden death, under the names of brain-fever and apoplexy, is generally improperly treated. The free use of opium produces an unfavorable effect upon the nervous system, and tends to check the already diminished secretions. The two forms of the disease require, in treatment, corresponding modifications. The indications are, to establish the secretions, disgorge the system of the alcoholic poison, and to introduce proper nutriment. Calomel in small doses, frequently repeated, until from fifteen to twenty grains are taken, should be followed in eight or ten hours by small and repeated doses of saline medicine. After the stomach and bowels are thus disgorged, milk is universally applicable as a nutriment; the addition of lime-water renders it particularly grateful and soothing to the irritated stomach. In all acute cases, alcoholic stimulants should be withheld, and opium in all forms, prohibited. Where the latter is indicated, which is never the case before the system is thoroughly relieved of the alcohol, equal parts of morphia, and tartrate of antimony, given in small and repeated doses, will soon calm the nervous system and induce sleep, without injury to brain or stomach.—*New Orleans Med. and Surg. Journal*.

Dr. L. P. Gebhard considers delirium tremens as a form of gastritis, only distinguished "by the peculiar nature of its cause." He therefore recommends the application of bloody cups over the whole region of the stomach, with the internal use of opiates. Camphor and opium may be given in conjunction, until sleep is induced; or, better, a mixture of sulphate of morphia, extract of hyoscyamus, and extract of valerian, which has proved of decided advantage. Neither alcohol nor fermented drinks are required.—*Med. and Surg. Reporter*.

The jail-physician of Chicago has found ipecacuanha remarkably successful in delirium tremens. Where a case is not of too long standing, he gives it first as an emetic, and afterwards from fifteen to eighteen grains every other day. Shower-baths and strong beef-tea are used besides, but no alcoholic stimulants.—*Journ. of Mat. Med.*

In the Savannah Hospital very satisfactory results have been obtained with the extract of Indian Hemp, six or eight grains every two or three hours. The tincture is preferable to the extract; a teaspoonful of it taken every two hours, induces sleep rapidly.—*Savannah Journal of Medicine.*

Dr. D. L. Gloninger, of Philadelphia, says: "Nothing will answer every indication as well as lupulin. It may be given *ad libitum* without danger; a tablespoonful, if you please, every hour, until sleep is produced. As much as six pounds of the tincture, made with pure brandy, have been given, before the narcotic effect followed."—*Med. and Surg. Reporter.*

The fluid extract of lady's slipper has been used by Dr. Simms, of Wilmington, Del., with entire success; a tablespoonful every hour, until sleep is produced, which is generally in twelve hours. The remedy is afterwards continued in smaller doses until the patient gets well.—*Journal of Materia Medica.*

Treatment of Chorea.—Dr. Stone, medical registrar of St. Thomas Hospital, has based the following conclusions upon fifty cases of chorea there treated during the year 1858: of sixteen cases treated with sulphate of zinc, thirteen went out cured, three relieved; but two of the latter were in a fair way of recovery, which may be set to the credit of the medication. On the other hand, three of these ultimately cured, owed their improvement partly to ferruginous preparations. In one case the zinc had no effect whatever. The longest stay in the hospital among these sixteen cases was 123 days; shortest, 14; the average, 44.6 days.

Fourteen cases were treated during the same period with preparations of iron; all were cured. Longest time, 161 days; shortest, 6; average, 44.2 days.

Liquor potassæ arsenitis was employed in twenty cases; eighteen cured, one relieved, one died. Longest stay, 55 days; shortest, 6; average, 26.3 days.

It remains a question whether the discrepancy between these results and those of some previous well-conducted observations is due to mere accident, or to some real difference in type between cases originating at different times and under dissimilar circumstances.—*Med. Times and Gazette.*

Dr. S. N. Pierce, of Cedar Falls, Iowa, has reported, in a former number of the *Boston Med. and Surg. Journal*, a case of chorea in a strong and plethoric girl of fifteen years, who was first treated with nitrate of silver and sulphate of zinc, without benefit. The addition of extract of stramonium seemed to control the disease somewhat, but soon that agent lost all its influence, even in increased doses. Then the following pills were ordered, and conquered the convulsions: extracts of stramonium and hemlock, of each fifteen grains; strychnia, two grains; nitrate of silver, two scruples. Divide into thirty pills, three of which are to be taken during the day. The amount of strychnia and nitrate of silver was gradually increased.

Treatment of Epilepsy.—Dr. Fabre reports seven cases of confirmed and well-marked epilepsy, in which pills of the hydrocyanate of iron have effected cures. He alludes also to numerous cases in which the same substance has been successfully employed by Dr. Roux, of Brignolles, and adduces the testimony of others in support of the advantageous effect of this preparation, which has been employed since 1829 in chorea and other neuroses complicated with chlorosis.—*Revue de Malgaigne; Journ. Mat. Med.*

Dr. G. S. Bailey, a retired physician of Iowa, states in a letter to the editors of the last-named journal, that his only son, after having been treated six years for epilepsy with every remedy that medical skill could suggest, without success, was finally cured with the hydrocyanate of iron, by Prof. D. L. McGugin, of Keokuk. The formula employed corresponds with the one used by Dr. Treat (*Cin. Lancet and Observer*, June, 1860, p. 383): hydrocyanate of iron, one drachm; powder of valerian, two drachms; extract of Indian hemp, one drachm being originally added by McGugin. Make into one hundred and twenty pills. One of them is to be taken three times a day, gradually increased to four.

Dr. Max Maresk, physician of an establishment for the insane at Vienna, submitted some epileptic patients to the influence of atropine. Out of eight cases taken from the female department, three were completely cured, and the condition of the five others notably ameliorated. Ten other patients, four men and six women, were selected from the department of the incurable insane, for the same experiment. Eight of these experienced a marked diminution in the violence and frequency of their epileptic attacks, as well as in the

acerbation of their physical trouble. One-fiftieth of a grain of atropine gave rise, in every case, to the phenomena habitually following the administration of this agent; the patients became habituated to them, although they never ceased during the entire treatment. In every case the pulse lost eight or twelve pulsations during the first hour after taking the remedy, but resumed its normal frequency as soon as the other phenomena manifested themselves. The atropine was administered in a solution of one grain in five hundred drops of rectified alcohol; five or ten drops of this constituting a dose, which is administered once daily, in the morning before breakfast. Coffee, tea and chocolate interfere with the action of the atropine. It is continued for sixty or ninety days, and then resumed after an interval of from thirty to forty-five days. It favors and augments menstruation, and but rarely gives rise to constipation, more frequently to diarrhœa, necessitating, when severe, suspension of its administration for some days. —*L'Union Med.*; *N. O. Med. and Surg. Journ.*

Selinum palustre, in powder, effected a complete cure in the hands of Dr. Th. Herpin, in four cases of idiopathic and partly of inherited epilepsy. He administered from one to four ounces during the week, divided in twenty-four doses, of which three or four were taken daily. According to Dr. Tagod (*Bouchard's Annuaire de Therap.*) the root and herb of *peucedanum austriacum* are still more efficacious. He gave two grammes of the powder three times daily.—*North Amer. Med.-Chir. Rev.*, from *Bull. de Therap.*

Mr. E. Baines reports a case with the powdered water-plantain, *alisma plantago*, four grains twice daily, increased a grain every third day. But the root must be collected at the end of August. This deserves a more extensive trial.—*London Lancet.*

PROCEEDINGS OF SOCIETIES.

Abstract of the Proceedings of the Esculapian Society, at the Meeting held in Paris, Ill., January 1st and 2d, 1861.

(Reported by D. W. Stormont, M. D., Secretary.)

The Society met at the office of Dr. Davis, in Paris, Jan. 1st, and was called to order by the President, Dr. Chambers, at 10 o'clock A. M. The minutes of the last meeting were read and approved.

Dr. Geo. Ringland was elected a member of the Society.

Dr. Herrick, the Treasurer, submitted his report, which was received.

Dr. Stormont read a paper on the use of Anhydrous Sul. Zinc, as a Caustic in the treatment of malignant and semi-malignant ulcers—claiming for it escharotic properties, equal to arsenious acid or Chloride of Zinc, but free from the objections which apply to these; it being perfectly safe, easily managed, and its application attended with far less pain than any other powerful escharotic known.

Dr. York, Chairman of the Committee on Indigenous Botany, read a report on "The Hop," as an anodyne, tonic, and antiperiodic; possessing great virtues in the latter stage of Phthisis, in Spinal Irritation, in Stomatitis Materna, in Intermittant Fever, especially its chronic form, and in many cases of Gastralgia; is a most valuable antihectic; hence, useful in all diseases attended with hectic fever.

Dr. Chambers read a paper on Diphtheria, the main points of which were, that it is a blood disease, produced by a specific poison which manifests itself locally in the throat, as the virus of Small-Pox does upon the skin; with a tendency to spread upon the mucous surfaces. It is a disease of debility and is not contagious. Treatment, internally, Chlorate Potash and large doses of Sulph. Quinine. As a local application, Nitrate Silver, gr. 60, to one ounce of water. If the air passages are involved, the atmosphere in the room should be kept saturated with the vapor of boiling water.

Dr. Davis coincided generally with the essayist; preferred tinct. iodine for local application; believed it would stop the spread of the disease from the throat to contiguous parts.

Dr. Stormont had seen but little of this disease; believed it to be a blood disease, asthenic in its tendencies, demanding a supporting treatment. Some experiments he had read, favored the opinion that the specific virus, acting upon and through the blood, tends to induce an abnormal alkalinity of all the secretions, indicating the use of acid tonics, such as nitro-muriatic acid, or sulphuric acid, or *muriated tincture of iron*, with Quinine, nourishment and stimulants.

Dr. York said the danger lay not in the diseased condition of the blood, but from the extension of the disease downward into the windpipe, producing croupy symptoms. He relied upon tinct. iodine to stop this extension. It is not contagious. Treat according to the indications present. Some cases are sthenic, and others are asthenic. Or the same case may be sthenic to-day and asthenic to-morrow. Hence in one stage mercurials and sedatives may be demanded; in another stage tonics and stimulants are the remedies. Emetics should be used cautiously; of these he prefers alum, one teaspoonful every twenty minutes until vomiting. Avoid the too frequent application of caustics to the throat; it produces mischievous irritation; not oftener than once every day, or every other day. When the disease has extended into larynx and trachia, stop the local application of tinct. iodine, or Nit. Silver. It is then a useless annoyance. A vast majority of cases die, in which there is complete aphonia; known of only four recoveries from this condition. Here I give Quinine very freely, with Dover's powders.

Dr. Tenbrook. This disease is asthenic in character. Treatment; First order a mild aperient, then follow with stimulants and tonics. As a local application to the throat, greatly prefer the solid Nit. Silver; if used in time it will prevent the extension of the disease into the windpipe; it should be used not oftener than once in twenty-four or forty-eight hours. In the interval use a gargle of common salt, sweetened. In the worst cases I have met with, aphonia and general venous congestion were present, when first seen, without much or any disease in the throat. Such generally die. Always have the patient washed all over daily with warm salt and water, and rubbed with a dry towel until the skin glows. Am not decided as to its being contagious.

Dr. Herrick reported a case of compound fracture of the leg.

The Business Committee submitted a report, which, after amendment, was adopted as follows, viz:

Resolved, That a subject shall be settled at each meeting, for general discussion at the subsequent meeting.

Resolved, That the question at the next meeting shall be ;
Is the character of diseases at this time asthenic ?

Dr. Chambers was appointed to open the discussion.

The following standing committees were appointed, for the
present year, viz :

ON PRACTICAL MEDICINE.

Dr. L. L. Todd.

“ D W. Stormont.

“ D. O. McCord.

ON MIDWIFERY.

Dr. H. R. Payne.

“ C. Johnson.

“ J. M. Steele.

ON SURGERY.

Dr. O. Q. Herrick.

“ H. W. Davis.

“ W. M. Chambers.

ON EPIDEMICS.

Dr. J. Van Dyke.

“ C. Duncan.

“ C. Gorham.

ON INDEGINOUS BOTANY.

Dr. S. York.

“ J. Tenbrook.

“ F. R. Payne.

The following were the officers elected for the ensuing year,
viz :

Dr. Tenbrook, President.

“ J. Van Dyke, Vice Pres.

“ D. W. Stormont, Secretary.

“ J. M. Steele, Treasurer.

Drs. York, Chambers, Todd, H. R. Payne and Pearman, Censors.

Dr. Van Dyke was appointed to deliver the next public address.

On motion, the Society adjourned to meet in Charleston, on the last Wednesday in May.

EDITORIAL.

THE AMERICAN MEDICAL ASSOCIATION.—Under this caption, we find in the *Louisville Monthly Medical News*, for November, which has just reached us, an editorial article which closes with the following paragraph :

“The meeting at Chicago, we fear, will be thinly attended. There will doubtless be an excitingly amusing time with the solons of the Garden City, in reference to the next President.

We suppose that even now there is log-rolling and wire-pulling, and feasting, in anticipation of who are to constitute the nominating committee, and who is to be its chairman; for that fact ascertained, who will be President? becomes a foregone conclusion. There are two schools there, and judging from the tone of their respective organs, we would suspect that each had a candidate in the field, for they are playing at cut and thrust, in any other than a christian spirit. We would recommend them to be calm, and beat their swords into ploughshares. There is excitement enough over Illinois Presidents.”

We doubt whether another paragraph can be found in print, containing as many false assumptions and unjust intimations, as the above.

1st. It assumes that both of the Medical Journals published in this city are *organs* of the respective Medical Colleges. We take occasion to say that the Chicago Medical Examiner, is as perfectly independant of all medical colleges as any other Journal published in America.

2d. It assumes that the two journals are "playing at cut and thrust, in any other than a *christian spirit*." We would like to have the editor of the Louisville News, substantiate this by a single line of proof. This assertion would lead his readers to suppose that the Journals and Schools here, were engaged in a bitter and *unchristian* controversy; whereas nothing could be farther from the truth. There is not a line to be found in this Journal for the last six months, which alludes to the Rush Medical College, except in terms of friendship and respect. And on the other side, until its last issue in December 1860, the Chicago Medical Journal, the organ of Rush Medical College, had not so much as informed its readers that the Medical Department of Lind University was in existence.

3d. It assumes that each college has its candidate for the next Presidency of the Association; which is simply an assumption without a shadow of proof.

4th. It assumes that these candidates and their friends are already "*log-rolling and wire-pulling*," to get the next nominating committee properly arranged. Now we assure the editor of the Louisville Medical News, and all other friends of the American Medical Association, that these assumptions concerning the next President of the Association, are not only unqualifiedly false, but unjust to the whole profession of this city and state. It is well known that the senior editor of this Journal, and a large majority of the profession, both of this city and state, are strongly opposed to the custom of confining the selection of President to the place of meeting. So true is this, that the Illinois State Medical Society, at its last annual meeting, passed resolutions, almost unanimously, condemning the practice and instructing its Delegates to use all honorable means to break it up, and to establish the practice of electing all the officers with reference to their fitness without regard to localities. There are two organized Medical Societies in this city, each holding meetings once a month; and although we have attended nearly all the meetings of both, we have never yet heard the subject of the next Presidency of the Association alluded to in either. Our *confreres*

at Louisville, and the members of the Association every-where, may have their minds at perfect ease about "log-rolling" and every other species of strife among the profession in this city. We invited the association to meet here, not for the evanescent honors of its highest office, but for the glorious privilege of receiving its members at our own firesides, of extending to them the same generous hospitality that we have had extended to us in so many other cities, and of permitting them to see, here in the Garden City itself, one of the most striking illustrations of the energy and activity of the age in which we live, that can be found on the continent.

We cordially invite the members and friends of the Association, in every section of the country, in the East, the West, the South, and the North, to honor us with their presence.

We hope that neither political dissensions nor sectional prejudices will deter any from coming up to our annual greeting. We shall look for none with more anxiety; and we are certain that none will receive a more cordial welcome, than those with whom we have so often met from Charleston, Richmond, Baltimore, New-Orleans, Nashville, Louisville, and other cities of the South. Come on friends from all sections; come by hundreds, for we have ample halls, capacious hotels, broad prairies, beautiful lakes, and a generous people. Give us a full meeting, a free interchange of sentiments for the advancement of the noblest and most humane of professions, and the happy privilege of serving you to the best of our ability, and you may confer your Presidential honors on whomsoever you may deem most *worthy*, without the slightest regard to locality, and we will guarantee that the profession of Chicago will be satisfied.

TO THE MEMBERS OF THE ILLINOIS STATE MEDICAL SOCIETY.
—We copy the following characteristic paragraph from the Dec. No. of the *Chicago Medical Journal*. It is evidently from the pen of its Senior editor, Dr. D. Brainard:

"The Transactions of the Illinois State Medical Society, have at last come into being, after a lingering and tedious labor, from among the viscera of the *Examiner*."

We have not yet had time to give the Pamphlet a full reading, but it does strike us as singular, that after such a prolonged gestation, the product shows either "arrest of development" or evisceration. The copies we have seen have omitted eight pages from the body of the report on Surgery. Comment is unnecessary. We shall read the balance at our leisure."

Here we have plainly *insinuated* three distinct charges, so evidently designed to create prejudice against the Permanent Secretary of the State Society, under whose supervision the Transactions are published, that we are not willing to pass them by without a few words of explanation. The three *insinuations* are :

1st. That the publication of the transactions has been usually and improperly delayed.

2d. That such delay was occasioned for the purpose of using the matter first to fill the pages of the Examiner.

3d. That after all the delay, the publication had been so carelessly executed as to leave out "*eight pages* from the body of the report on Surgery."

Instead of characterizing each and all of these charges as wholly gratuitous and false, as we might do with perfect propriety, we will simply submit the following statement of facts. In accordance with the resolutions of the State Society adopted at different times, it has been customary to delay putting the Transactions to press, at least, sixty days after each annual meeting, both for the purpose of giving the Treasurer time to notify non-attending members of the amount of the annual assessment, and of procuring the names of all who pay, for publication. The last annual meeting was held about the middle of May ; and on the first of August we had all the papers ready to put to press, except the reports on Surgery by Dr. Brainard, and on Diseases of the Eye by Dr. Holmes. Not anticipating that either of these reports would be of undue length, we sent those in hand to the printer, and notified the gentlemen just named that their papers were wanted for publication. Dr. Holmes promptly sent us his report, but only a part of that on Surgery was given us at first. We had

directed the printer to push the work to completion as rapidly as possible; and to publish no part of it in the Examiner, except the Valedictory Address of Dr. Prince, and the Annual Address. But as the work progressed, and we received the remainder of the report on Surgery, it was ascertained that it alone would make over seventy pages of printed matter; and would, consequently, swell the volume to a size much beyond that of any previous year, and also increase the expense beyond the amount in the hands of the Treasurer. The Treasurer was immediately notified of these facts, and with his consent the publication was retarded long enough to enable him to send notices and get returns from such members of the Society as had not yet paid their dues. To lessen the expense as much as possible, we took advantage of this delay, and caused the reports on Obstetrics, Practical Medicine, and Veratrum Viride to be inserted in the Examiner, thereby causing the cost of setting the type for those papers to be charged to that Journal instead of the State Society. The author of the report on Obstetrics also furnished, gratuitously, the wood cuts that accompany that report. Notwithstanding these embarrassments, the Transactions were published, and a copy mailed to each paying member of the State Society early in November; which is as early as they have been issued in former years. We have twice before relieved the Treasury of the State Society from debt, by publishing a large part of the matter designed for the Transactions in the Medical Journal, and charging the Society only for paper and press-work. If, in endeavoring to prevent the accumulation of another debt this year, by the same means, we have done wrong, let the Society at its next meeting promptly say so; and we will most cheerfully give them the privilege of choosing a more faithful servant for the future.

In regard to the charge, that the Transactions had been issued in a *mutilated* condition, we have only to say that we have taken the trouble to examine the whole bundle left in our possession, amounting to, at least, 250 copies, without finding one from which a single page was missing. It is possible that the *senior editor of the Chicago Medical Journal*

has found a copy, from which the binder had accidentally omitted, in the stitching, a single form of eight pages. If so, his object in publishing the fact to the world is sufficiently obvious. If any member of the State Society, who has paid his dues for the year 1860, has not received his copy of the Transaction, he will confer a favor by notifying me, and he shall be supplied.

N. S. DAVIS,

Permanent Secretary of Illinois State Medical Society.

CHICAGO ACADEMY OF MEDICAL SCIENCES.—At the annual meeting of the Chicago Academy of Medical Sciences, held Jan. 4th, 1861. The following fellows were elected officers for the ensuing year:

President, Dr. James Bloodgood. Vice President, Dr. Thomas Bevan. Recording Secretary, Dr. E. L. Holmes. Corresponding Secretary, Dr. J. McAlister. Treasurer, Dr. Wm. Scott Denniston. Trustee, Dr. A. Fisher. Committee on Medical Education, Dr. Wm. H. Byford, Dr. J. W. Freer, Dr. Thos. Bevan. Committee on Medical Ethics, Dr. R. C. Hammill, Dr. N. S. Davis, Dr. E. Powell. Committee on Admissions, Dr. J. Wickersham, Dr. H. W. Jones, Dr. S. C. Blake.

 We would call attention to J. H. Reed & Co's. Catalogue of Surgical Instruments, which we publish in this number of the Journal. Reserve it for future reference.

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THE CHICAGO MEDICAL EXAMINER.

EDITED BY

N. S. DAVIS, M. D., EDITOR.

PUBLISHED BY WM. CRAVENS & CO.

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The EXAMINER will be issued during the first week of each month, commencing with January, 1860. Each number will contain 64 pages of reading matter, the greater part of which will be filled with such contents as will directly aid the practitioner in the daily practical duties of his profession.

To secure this object fully, we shall give, in each number, in addition to ordinary original articles, and selections on practical subjects, a faithful report of many of the more interesting cases presented at the Hospitals and College Cliniques. While aiming, however, to make the EXAMINER eminently practical, we shall not neglect either the scientific, social, or educational interests of the profession. It will not be the special organ of any one institution, society or clique. But its columns will be open for well written articles from any respectable member of the profession, on all topics legitimately within the domain of medical literature, science, and education.

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No. 2

ORIGINAL CONTRIBUTIONS.

Abstract of a Paper on the Influence of Alcoholic Drinks, on the Development and Progress of Tubercular Diseases, and especially Pulmonary Tuberculosis; read to the Section of Practical Medicine and Obstetrics, during the Session of the American Medical Association for 1860. New Haven, Oct. June 5th, 1860. By N. S. DAVIS, M. D.

When we remember that about *one seventh* of all the deaths in our country, and also in some of the more enlightened nations of Europe, are produced by tubercular disease of the Lungs, we shall readily see the importance of investigating closely and critically the influence of every agent that may be supposed either to favor or retard its development.

For many generations, alcoholic drinks have been so generally in use by all classes of people, as to exert an important influence for good or evil, on the health of individuals and communities. It was not, however, until within the last six or eight years that the idea was announced, and rapidly circulated through the various periodicals of the country, that alcoholic beverages, and especially genuine Bourbon Whiskey and pure Lager Beer, were capable of, both preventing the development of pulmonary tuberculosis, and of retarding its progress after it had been developed. This announcement not being in consonance with many facts that had previously come under my observation, led me to commence immediately a record of all well marked cases of Tuberculosis that came under my care, and from the subjects of which I could obtain a perfectly reliable account of their previous habits in relation to the use of alcoholic beverages, whether fermented or distilled.

The result of my observations for the first year were reported to the Illinois State Medical Society, at its annual meeting in June, 1856. Since that time the record has been extended until it embraces 210 cases, including the records of both hospital and private practice. Of these cases 140 were males, and 70 females. Eighty-five were natives of Ireland; 60 of the United States; 25 of Norway and Sweden; 20 of Germany; 15 of England, Scotland and Wales. To prevent erroneous conclusions in regard to these statistics of nativity, we should state that in Chicago, where these observations were made, about one half of the entire population are of foreign birth. And of this half, far the greater part are from Ireland and the German States, though both Swedes and Norwegians are numerous. These statistics being gathered from my own personal observations in practice, it is proper to state that through my connection with the Hospital of the Sisters of Mercy, I come in practical contact with a much larger population of the natives of Ireland than of any other class of foreigners. This will account in part for the very large relative proportion of cases from that class of people. The leading object in recording all these cases, was to ascertain just how far the subjects of them had been under the influence of alcoholic drinks, for a period of not less than one year previous to any active or noticeable symptoms of the tuberculous disease.

To show the results in reference to this point, I have been obliged to divide the whole number into three classes. The first, were such as had used some form of alcoholic beverage almost daily from one to twelve years previous to the active signs of tuberculosis; the second, such as used these drinks occasionally; and the third, such as had wholly abstained from their use.

Of the 210 cases, 68 belonged to the first class; 61 to the second; and 81 to the third. Although so large a proportion as 68 out of the 210 cases, were habitual drinkers of alcoholic liquors, only 15 of that number were such as are usually called *drunkards*. Five of these were admitted into the Hospital while affected with delirium tremens, and also in the

advanced stage of tubercular phthisis. Among the 53 cases occurring in those habitually using alcoholic beverages, yet not to the extent of producing drunkenness, there were many presenting circumstances as favorable for determining the question whether these agents are capable of preventing the development of pulmonary Tuberculosis, as though they had been selected by a judicious practitioner purposely for an experiment lasting through a series of years. For instance, a man aged about 45 years, native of Ireland; had resided in the State of Wisconsin for the last twelve years, keeping a public house or tavern in a healthy rural district. He was an intelligent and candid man, and had come to Chicago to consult me in relation to his health. I found him much emaciated, with hectic fever, purulent expectoration, and the physical signs of cavities in the upper lobes of both lungs, surrounded by tuberculous deposits in different stages of advancement. In answer to my inquiries, he said his cough and first symptoms of disease had commenced gradually, about eighteen months previously—had lived in a country district twelve years, during which time, though keeping a *Tavern*, he had taken a fair degree of out-door exercise—had generally enjoyed good health—and had been in the habit, during the whole time, of taking from one to three or four moderate drinks of alcoholic liquors every day, (chiefly Brandy and Whiskey), but had never drank to the extent of producing ordinary intoxication. He denied all knowledge of any hereditary tendency to consumption in the family to which he belonged. This case terminated fatally in about two months after his consultation with me.

Mr. W——, a native of the interior of New York, moved to Wisconsin some fifteen years since; pursued an active life as an agriculturalist, often engaging in the favorite sport of hunting and fishing. He was a man of talent and education, and acquired much distinction and influence in the community. A short time before his death, which was caused by tubercular phthisis, demonstrated by a *post-mortem* examination, I was requested to visit him, and learned that for ten years, at least, he had made almost daily use of distilled spirits.

Mr. A——, a native of New York, aged 24 years ; married and moved to Chicago, only two years since ; has enjoyed good health until eleven months since, when he began to cough, and all the symptoms and signs of tubercular phthisis have been successively developed, until at present he is in the last stage of the disease. From himself and wife I learned that for the last four years he had made daily use of alcoholic beverages ; at first moderately, but for the last twelve months to such an extent as to occasionally produce intoxication.

Mrs. G——, a native of Ireland, aged twenty-three years, came to this country two years since, was married and gave birth to a child, which was four months old when she came under my observation.

She was then in the advanced stage of tubercular phthisis, and died one month afterwards. I learned from her, that until the last eighteen months she considered herself in good health, and did not know that there was any hereditary tendency to phthisis in the family to which she belonged. That for three years previous to leaving for America, she had lived as a servant girl with an English family, and had been furnished as regularly with her *mug* of *Beer* as with her meals. Since her arrival in America she had continued to use the Beer, and occasionally a glass of distilled spirits.

Mr. W——, a young man, had been employed as clerk in a saloon, came to me on account of a cough which had been increasing during the previous three months. On examination, found he had lost flesh, had frequent night sweats, some pus in the expectoration, with all the physical signs of tubercular deposits in the middle and upper lobes of one lung in the second stage of its advancement. He said he had seldom tasted of distilled spirits, but had drank from one to four glasses of ale, daily during the last four years.

Mr. G——, a native of Ireland, aged twenty-one years, came under my observation in the early part of last winter. He had just returned from New-Orleans, and was in the last stage of phthisis. He went to New-Orleans three years previous in good health, had resided there during the three years working as a ship-corker. Told me that his daily practice had

been, during the whole time there, to drink a glass of some kind of liquor, generally whiskey, at each meal time, and often a fourth glass at lunch.

I thus briefly state a few of the cases, as samples of nearly all of the 68, included in the first class. They were all cases showing that the tubercular disease was developed and regularly progressed through all its stages, in *one third* of the whole number of cases in subjects who were at the time, and had been for from one to twelve years previously, regularly and habitually using either fermented or distilled drinks. In but little less than one half of the whole number of cases, the disease was developed while the subjects of it were only occasionally using these drinks. While in less than *one quarter* of the whole number, the disease was developed in subjects who had for *years* totally abstained from all such drinks. Hence, so far as these personal observations bear upon the subject, they point directly to the conclusion, that the use of alcoholic beverages, however uniform their administration, and however long continued, does not prevent the development of tubercular phthisis. If we turn from the narrow circle of personal observation to more general inquiries we shall be forced to the same conclusion.

Thus by the sickness and mortality reports of the English and American armies, it is made apparent that soldiers who use regular rations of alcoholic drinks, furnish full as high a ratio of deaths from tubercular disease, as any equal number of men who do not use such drinks. Again, the statistics compiled by Dr. Bell of New-York, in his prize Essay on this subject, led him to the conclusion, not only, that the use of alcoholic drinks did not prevent the development of tubercular disease, but that it actually favored it. The second part of the paper briefly presents those experimental inquiries into the positive action of alcohol on the properties and functions of the human system, which were commenced by me in 1850, comparing them with similar inquiries instituted by others both in this country and Europe; and by which it is clearly demonstrated that the presence of alcohol in the system diminishes the great functions of respiration, capillary circula-

tion, calorification, and metamorphosis of tissues; and as a necessary consequence, leads to diminished excretion and the accumulation of effete matter both in the blood and the tissues. Finally, both the general and special causes that are supposed to favor the development of phthisis, such as a damp atmosphere, insufficient muscular exercise, confinement within doors without sufficient ventilation, &c., are brought under review and their *modus operandi* examined. All these causes are shown to act in one and the same direction, viz: to retard the metamorphosis of tissue and the excretory functions of the lungs, skin, kidneys, &c.

It is thus made to appear, that the causes which are generally acknowledged to favor the development of tubercular consumption, actually produce a pathological condition of the structures and functions of the body, closely analogous to that induced by alcoholic drinks.

This analogy is further shown by the fact, that a large proportion of cases of phthisis are accompanied by fatty degenerations of the liver, kidneys, &c., strikingly similar to the fatty degenerations of the same organs, induced by the protracted use of alcoholic drinks.

From the whole field of inquiry passed over, the following conclusions are deduced, to which the critical attention of the section on Practical Medicine is respectfully invited:

1st. That the development of tubercular diseases, is facilitated by all those agents and influences, whether climatic or hygienic, which directly or indirectly, impair or retard the metamorphosis of the organized structures and the efficiency of the excretory functions.

2d. That both observations and carefully devised experiments show that the presence of alcohol in the human system, notwithstanding its temporary exhilaration of the nervous system, positively retards both metamorphosis and elimination.

3d. That neither the action of alcohol on the functions of the human body, nor the actual results of experience, furnish any evidence that alcoholic beverages are capable of either preventing or retarding the development of tubercular phthisis.

MERCY HOSPITAL.

Service of E. ANDREWS, M. D., Prof. of Surgery.

A Clinical Lecture upon Facial Neuralgia

GENTLEMEN :—The spouting blood and the gaping wounds of common surgery, do not in the least disturb me; yet I set a patient before you this morning, at whose horrible suffering, I confess I am appalled. This man presents to your view no perceptible organic disease. The heart and lungs are sound, the brain is normal in its condition, no canker gnaws at his vitals and no poisonous disease contaminates his blood; yet this man, for very torture, has not lain down in bed for five years. His hair is gray with suffering rather than with age, and the firmness of his step, the steadiness of his voice, the brightness of his eye, and the vigor of his resolution, are all broken and gone, from the extremity of his distress.

Such a malady, gentlemen, is Facial Neuralgia in its more aggravated form.

This disease manifests itself, of course, in the branches of the fifth pair of nerves, from which the face derives its sensibility. Allow me to refresh your mind a little upon the anatomical relations of this nerve. The fifth pair while yet within the skull, and just at the body of the sphenoid bone forms the simular ganglion. From this ganglion proceed three large branches. The superior of ophthalmic branch supplies the eye, then runs along the roof of the orbit, passes through the supra-orbital foramen and supplies the forehead and adjacent parts. The middle or superior maxillary nerve runs straight forward through the foramen rotundum, across the sphenomaxillary fossa, into the orbit, whence it emerges by the infra-orbital foramen and supplies the cheek, upper lip, anterior part of the gum and the incisor teeth. The last or inferior maxillary branch of the fifth pair, passes out of the skull at the foramen ovale, and decends to the lower jaw where the chief branch enters the dental canal, supplies the lower teeth, and then emerging at the anterior mental foramen supplies the lower lip and the chin.

I show you here, a splendid French preparation in which all the branches and ganglion of the fifth pair are finely displayed with the various canals and foramina through which they pass.

To a careless practitioner, grown rusty in anatomy and obtuse in his pathology, facial neuralgia presents merely an obstinate darting pain in some part of the face, without any apparent inflammation, without much tenderness upon pressure and to his stupid apprehension without cause; but to the truly scientific surgeon, there is no more splendid opportunity for a clear diagnosis than one of these very cases.

To you, gentlemen, I trust that facial neuralgia will present no puzzles. When you have seen and examined your patient, the whole disease will be as clear to you as sunlight. You will know at once what nerve is affected, and will, without a moments hesitation, be able to put your finger upon the exact spot in its course where the cause of trouble exists; furthermore, you will be able to cure cases which other and less educated men have fumbled over in vain for years.

The key which unlocks all the mysteries of these cases is the following proposition:

Facial Neuralgia, generally results from the compression of some of the branches of the fifth nerve, at the points of passage through the canals and foramina of the facial bones.

If you question your patient, you will generally find that the pain centres chiefly in the parts supplied by a particular branch of the fifth nerve. If you trace back this nerve to the first foramen through which it passes, you will discover that all the branches on the distal side of the foramen are neuralgic, while all the branches given off before reaching the opening, and which do not pass through it, are unaffected. Thus for instance, this patient has a terrible shooting pain in the roots of the right canine and incisor teeth, in the outer side of the gum corresponding, in the upper lip overlying the affected teeth, and in the right cheek and the right lower eyelid. But he has no pain in the roof of the mouth, in the molar teeth, nor in the upper eyelid. Now then what nerves supply the front teeth, the outer side of the gum, the upper lip, the cheek, and the lower eyelid? Obviously the infra-

orbital nerve. Those twigs, and those only, are painful which have come through the infra-orbital foramen. This opening therefore must be the seat of the disease. To settle the question, I will now make pressure upon the foramen itself. (Here Prof. A. pressed upon the spot with the end of a pencil, and the patient cried out in a paroxysm of pain.) You see gentlemen, I have found the spot. Pressure at this foramen renews the atrocious pains, which seem to the patient to shoot through the whole distribution of the infra-orbital branches.

You remember the patient who was here some months since with an awful neuralgia in the lower lip and chin. His pain had endured seven years, and his life was utterly worthless to him. In that case, the pain was confined to those branches of the inferior maxillary nerve which passed through the mental foramen, and the excision of a portion of the trunk of the nerve on the proximal side of the foramen, effected a complete cure.

The pathology of these cases may be briefly elucidated as follows :

1st. The fifth pair of nerves above every other pair in the body sends its branches through a multitude of bony foramina.

2d. Any irritation of the bone or periosteum may cause constriction of the foramina or thickening of their fibrous lining, in which case the nerve is pressed upon and rendered neuralgic. Other tissues can accommodate themselves to a continuous pressure, so as not to be permanently troublesome, but it is a peculiarity of nerve trunks, that they will not thus submit, but keep up from year to year the most atrocious torments.

3d. From this it follows that constriction in the supra-orbital foramen will give rise to neuralgia of the forehead; in the infra-orbital foramen it will cause pain of the incisor teeth, upper lip and cheek; in the posterior palatine canal it will cause pain in the roof of the mouth where the palatine nerve is distributed; in the dental canal of the lower jaw it will effect the lower lip, the chin, and all the teeth anterior to the point of constriction.

The treatment suitable for neuralgia of the fifth pair, is in the first place to remove the constitutional diathesis, upon which the local constriction depends, as for instance, the rheumatic, syphilitic, or malarious influences. If this does not suffice, but the pain continues intolerable and incurable, then you must resort to surgical interference. The surgical operations adapted to these cases are of two kinds. The first is the subcutaneous injection of narcotics over the seat of constriction, and the second is the extirpation of a portion of the trunk of the nerve.

The first operation is one of recent invention, and was introduced into this country from France. The object is to introduce the sulphate of morphine or atropine directly in contact with the effected spot in the trunk of the nerve, and thus effectually narcotize it. I confess, gentlemen, I am unable to account for the success which attends this operation. Thoretically, I should expect that the relief thus obtained would be very transient, lasting only until the narcotic injection was absorbed and disposed of; but the facts in my experience, and in the experience of others, show that the cure is often permanent after a few repetitions of the injection.

The means required for this operation are a proper syringe and a solution of narcotic. The syringe which I here show holds fifteen drops. The pipe is a fine canula of the size of a large needle, and sharp at the extremity for introduction into the tissue. The solution must be prepared of such strength that the syringe will hold the required dose of the narcotic, which must be the same as when given in full dose by the stomach.

The next step is to find the proper place of introduction. To do this you will bear in mind, that it is not to be thrown in at the place where the patient refers the pain, but over the foramen which is the seat of stricture. You will trace up the nerve therefore to its foramen, and there you will find a spot which being sharply pressed upon by any small hard object causes an aggravation of the neuralgic pain. This is the place for operation. In the present instance it is the infra-orbital

foramen. I now place the point of the syringe over the foramen, push it through the skin, and inject the solution in direct contact with the nerve.

The effect of the injection is often surprising. I can refer to patients in whom a single injection has effected a cure that has now lasted for months, and will probably be permanent.

Sometimes, however, this method fails. The foramina which transmit the nerves are not all accessible to the syringe, and at other times it fails of its full success. In these cases you must resort to the extirpation of a portion of the nerve itself. In selecting the place, and mode of operation, you will be guided by the following rules :

1st. The portion of the nerve excised must be taken from the proximal side of the constricting foramen, and not merely from the proximal side of the seat of pain, otherwise the operation is a perfect failure, because the point where the nerve is pinched is still in communication with the brain.

2d. The portion of the nerve excised, must if possible exceed a half an inch in length. If it does not, there is danger that the nerve may be reproduced across the space, and the pain at a future time be renewed.

If the mental foramen of the inferior maxilla be the offending spot, you may operate at the angle of the jaw. Dissecting up the soft tissues, take a large trephine and place the centre pin upwards and forwards from the angle, at such a distance that the edge of the crown shall be within $\frac{1}{4}$ of an inch of the anterior edge of the ramus where it joins the body of the bone. Then cut through the external table and pry out the button with an elevator. The nerve will be found running across the bottom of the cavity and may be dessected out.

In the present instance the fault is at the infra-orbital foramen, In this case a flap must be raised from the cheek as high as the edge of the orbit. A trephine must then be applied to the front of the *autrum highmoranium* in such a manner that the edge of the crown shall cut close to the for-

men. The button of bone being removed, the course of the nerve may be traced along the roof of the antrum by a slight bony ridge. This ridge is to be broken down with small forceps, or other instruments, and the nerve dissected out as far back as where it lies within the orbit, or, if deemed best even back to the sphenomaxillary fossa. The flap is to be laid down and secured with sutures.

If the supra-orbital nerve is in fault, no operation upon the bone is necessary. The nerve may be traced through the notch and cut out as far back in the orbit as you can reach without endangering the eye.

With these principles in your minds, gentlemen, you will find obstinate facial neuralgias not to be such incomprehensible riddles to you as they have been to your predecessors. You will understand them readily, and you will treat them efficiently, and the bewildered fumbling of former practice will so far as you are concerned be forever at an end.

CASE OF PROLAPSE OF FUNIS AND CRANIOTOMY.

By F. N. SMITH, M. D., of La Harpe, Illinois

I was called to see Mrs. W——, twenty-two years of age, in her second confinement, about noon of Friday, the 9th of November last. She was having pains at regular intervals, and tolerably severe. On examination, I found the head presenting; but through the membranes, yet unbroken, I could feel what I feared was the funis, ready to descend as soon as they should rupture. The first stage was about completed. A few pains more sufficed to burst the membranes, and what I feared, was now a dread reality. The cord came down nearly to the external parts. I immediately set about trying to place it above the head, in such a manner that it should be retained there. The method proposed by Dr. Meigs—a loop made of a short bit of tape placed around the cord, and a silver male catheter with which to place it up—

was ineffectual. I could not approximate it by means of my hand. An old midwife who was present, learning my perplexity, insisted that as her hand was smaller than mine, she could succeed perhaps. I permitted her to try. She succeeded, however, no better than I did. The child's head now completely filled the upper strait; still there was quite a strong pulsation in the cord. From indications, I began to fear, in addition to prolapsed funis, that there would be difficulty in accomplishing delivery, from the size of the head being so much greater than the capacity of the pelvis. I therefore sent to Blondinsville, a distance of three and a half miles, for Dr. Huston to assist me in the case, and to La Harpe, five miles for obstetric instruments. Dr. H. arrived about nine o'clock in the evening. For several hours—at least four—previous to this, labor had been making no progress, though the pains had been very energetic all the time. The doctor made an examination, and we decided that further effort at reduction of the cord would be useless. He thought we had better leave the labor to nature a while longer. This was agreed to; we waited till midnight, making occasional examinations, with reference to ascertaining what progress labor was making, if any. Nothing had been gained, and the agonizing pains were begining to exhaust the strength of our patient. Pulsation in the cord had ceased. Believing that further delay was not only useless, but jeopardizing the life of the patient, we now made preparations for the operation of craniotomy. The woman was placed partly on her left side across the bed, her hips resting on its edge, and her feet supported by chairs. I used Smellie's Scissors, which being warmed and oiled, I guarded with my index and middle finger, and carried its point to the head of the child, a little to one side of the suture. I directed my assistant to press the instrument, till I found it had entered up to the shoulder-stops, so called. The handles were then drawn asunder sufficiently far, as I thought, to make an incision, that would admit the crotchet. The scissors were withdrawn, and the crotchet introduced, carefully guarding as before. As soon as a pain came on, I made moderate traction, guarding the portion of skull hooked into with the instrument.

Finding that moderate traction did no good, I made it firmer and firmer, till the portion of cranium upon which I was drawing gave way. The position of the crotchet was changed, and I again got it engaged. After firm and steady traction had been made for some time, the cranium once more gave away. I then gave the instruments into the hands of Dr. Huston. He succeeded about as I had done. Although both of us had used a great deal of force, in assisting the efforts of the patient, very little had been gained. We had now the skull so broken up, that we could no longer use the crotchet. After a little rest and consultation, in which Dr. H. gave it as his opinion, that there was some deformity, which prevented the delivery of the child, and which he feared from indications could not be overcome, I proceeded with my hand, used as a blunt hook, to make all the traction in my power, during the presence of pains. The walls of the cranium, of course, had become to a considerable extent, collapsed. By means of my hand, I accomplished more in a short time, than we had effected with all our other efforts. I began to be encouraged. When my hand became tired and cramped, Dr. H. took my place. We attended in our efforts of this kind for perhaps an hour and a half, making slow but steady progress; and now, what was left of the head was in the world. By grasping the head, we could of course, aid the expulsive efforts of the woman to any extent we chose. But the strength of either of us individually could effect nothing at this juncture. We then attempted to bring down an arm; which was accomplished after a trial of some time. The effort requisite to bring down the other arm was not so great. The body was delivered with little delay. The hips became engaged, and were slowly and with a good deal of effort extracted. The placenta was speedily delivered, and there was but little hemorrhage. The child weighed nearly twelve pounds. Could it have been born alive, I judge it would have weighed at least thirteen pounds, perhaps more. It was about four o'clock Saturday morning, when the delivery was completed. The woman was not so much exhausted as I feared she would be. She inhaled considerable chloroform and ether, both before and after the operation;

deeming it best to omit it at the time, that she might be perfectly conscious of any entanglement, or implication of the soft parts, and thus by her warning us, we could avoid anything serious in this way. She thought the chloroform saved her life, by enabling her to endure her pains; and I would say, that I believe the anæsthetic did not abate an atom of the energy of the pains, but rather added to their efficiency. She recovered without an unfavorable symptom. Her size is considerably under medium; and her pelvis not nearly so capacious as we should expect even in a woman of her weight. In her first confinement, the labor I was informed, was very protracted and severe, though her child was quite small, a girl, weighing not to exceed six pounds. It was born alive and healthy.

AN ESSAY ON DIPHTHERIA.

BY HENRY W. DAVIS, M. D., OF PARIS, ILLINOIS.

Diphtheria or Diphtherite has occupied much space in the Medical Journals, and engaged much of the attention of the medical world during the past year. In regard to no affection has such a variety of opinions prevailed; and I am very certain that no one disease has had more advocates for varied and specified treatment. The Public Journals have as usual contributed their share of specifics; while our Medical Literature has been *sandwiched* by contributions from gentlemen who met the disease with the various surroundings, which not only control and modify its action, but exert a powerful influence in directing the treatment. Paris, Edgar Co., Illinois, was the first point west of Xenia, Ohio, at which the disease made its appearance; and as it was marked by a peculiar fatality at its first onset; and as it has been present during each succeeding year since 1853, sometimes in the form of an epidemic, I think an outline of the characters of the disease, embodying its pathology and treatment, may not be without

interest or profit. We have read of epidemics of diphtheria in which the disease was controlled, and patients cured by the employment of a single medicinal agent ; of others where cures were effected, and cases recovered under various constitutional remedies, without any, or but little attention having been paid to the effects of the disease as manifested in the throat. Such was not the kind of diphtheria brought under our observation, and such is certainly not the kind of treatment which a sad experience would induce us to recommend.

That diphtheria is a blood lesion, manifesting its presence not only in the throat, but upon all mucous surfaces, I am free to admit, but that it is the blood lesion which destroys the life of the patient, I am not willing to endorse. I conceive that a strong analogy exists in the pseudo membranous formation in dysentery, croup, bronchitis, and the same formation which appears in diphtheria, and in fact between the latter and all the plastic exudations peculiar to inflammatory affections of the mucous membranes.

Why it is that at one time we have an epidemic of dysentery, with a discharge of false membrane from the bowels, and at another a manifestation of apparently the same affection in the throat, I am unable to state. I leave the solution of that puzzle to those who are more familiar with the laws which control epidemics.

It is conceded, however, that when any general morbid cause prevails, nature will, after exerting the "*vis medicatrix naturæ*," succumb in that portion of the organism previously debilitated, or upon which the poison most readily exerts its influence : primary causes may exist which direct or locate the effects of the poison at different points : and thus it is in my opinion, why we have the same affection involving different parts, at different seasons, and under different miasmatic influences.

Whether the disease under consideration is purely sthenic or asthenic, I am not prepared to say, as it occurs in every variety of systemic condition, and appears to hold the laws of health in defiance. This doubt is predicated on the apparently

opposite state of the system, in different subjects, at the time of an attack. Were I to judge from the effects of the remedies which have been most potent in my hands, and those of my brother practitioners in this locality, I should say that it is purely asthenic in its character. This opinion will, I think, be verified when I come to speak of the treatment, although that will not place it beyond a doubt. I shall speak first, in relation to the manner and place in which the disease manifests itself; or rather of that point of manifestation to which our attention is first directed. This is the upper portion of the throat. I cannot, in giving a history of diphtheria, go beyond that point when the discovery is made of false membrane upon the anterior surface of the tonsils, and free end of the uvula. The appearance of the pseudo membranous formation can be compared to nothing, more like, than the hard boiled white of an egg. The color may vary from a pearly white to a dull yellowish hue; a variation which may be accounted for by the fact, that the deviation from the white is always accompanied with a relative degree of hepatic derangement. There is no marked amount of œdema, or inflammation in the neighboring parts. The exudation looks as if it was stuck in to the mucous membrane, without any connection, pathologically or anatomically, with the parts beneath. Patients generally make little or no complaint of soreness of the throat, which may be attributed to the fact, that what ever of irritation may exist, is protected from additional irritation from the passage of food by the false membrane; so that in many cases, the disease may have approached the "*Partæ Vatæ*" long before its presence was suspected; and the first note of warning was the hoarse croupy cough, resulting from the presence or approach of the disease in, or towards the larynx. There may be some swelling of the sub-maxillary, sub-lingual and parotid glands, accompanying the disease, or preceding it; but not always is this the case. Whether or not, there are any appearances existing in the throat, prior to the formation of false membrane, which would forewarn us of an attack of diphtheria, I do not know, it comes unannounced; and when discovered, it demands all that skill and attention can bestow.

We have *read* of one who treated the disease solely with *Quinine*, losing only one in fifty. We admire the heroism indicated by the *dose* and the *faith*, and wonder at the success ; but our patients die often before cinchonism would be produced by the largest dose of the salt. Another commends to us the use of salt and water as a gargle, and professes to have cured all his patients by its use alone. His patients were unlike ours, and the disease which succumbed to such a remedy was certainly different in character from that which we have had to encounter ; as, in our hands, the most potent local applications failed in many cases, until a natural mode of using them was adopted. The above mentioned extremely simple methods of treating the disease, *may have been successful* ; and were they not, still only negative in their character, little harm would be done, and no injury result from their promulgation and commendation. But they stop not on the side of negation ; as, by misleading the inexperienced and unwary practitioner, they become positively hurtful, and unless fully sustained by facts, should receive as they deserve, the strongest reprehension. I would call in question no man's judgement or veracity, but he who writes a history of a disease which, under all circumstances, no matter how favorable, is marked by an unusual fatality, should be at least cautious in recommending the potency of any remedy which has nothing connected with it to sustain the laudations bestowed upon it. The disease is one which every practitioner in the west may be called upon to treat, and his first essay may be against an epidemic characterized by unwonted virulence. Its formidableness is testified to by the number of victims already placed to its credit ; and it seems to me that the off hand suggestions, emanating from sources endorsed by unprecedented experience and *tuck*, or sustained only by a *brace of fatal cases*, cannot be too much condemned, or received with too much caution. The disease may come upon the isolated practitioner, as it has come upon us, with all its terrible features in attendance, followed by dissolution so rapid, that the physician not only feel powerless to do good, but stands appalled at its ravages ; under such circumstances, I do not believe that any one constitutional

remedy is a specific; and feel fully warranted in saying that no reliance can be placed in any one systemic agent. I propose to speak of the affection as it appeared among us; the success which attended our first efforts to control it, and the means by which we eventually were enabled to cure many cases.

I know that in no locality, and under no circumstances, could it have existed in a more formidable form. For a long time diphtheria was a synonym for death; and it was not until 1855 that the rationale of the treatment was forced upon us by the powerlessness of all means hitherto used, and which compelled a resort to something more effectual, either in its nature or application.

The first cases which fell under my observation in 1854, attracted no attention, save that excited by their singularity; nothing of the kind having been seen previously by me. The small amount of constitutional disturbances; the slight local irritation or inflammation; the absence of complaint with regard to the throat, and the little apparent demand for the use of remedies, were all calculated to lead the casual observer astray, and force the young practitioner to acknowledge that both skill and remedies were powerless and inert. Yet, when one after another died, in spite of the best and most active treatment then employed, the disease rapidly became a source of more alarm than curiosity.

Death followed the invasion of diphtherite in the throat with a celerity that seemed to defy the most skillful use of remedies; and although our most reliable tonics, alteratives and caustics were brought to bear, no good effect followed; yet I am satisfied that the failure originated not in the means, but in the applicant. Under these circumstances the disease became sufficiently alarming, but less so, from the fact, that it was considered non-contagious. In some few families there were several cases, but as a general rule, but one member was attacked, although surrounded by the same morbid causes. The victim was not the subject of any debilitating influences that were recognizable, but the disease appeared to display, in its selection, the most erratic disposition. So marked was this feature, that no one thought of making contagiousness

one of its characteristics. It was then regarded as a purely local affection, demanding nothing beyond local remedies, so far as the treatment of the special local lesion was concerned.

In many, if not all the cases, malarious complications presented themselves, which succumbed to antiperiodic remedies, but the remedy did nothing towards curing the affection in the throat, thus proving that the disease was not only independent of the poison producing ague, but of the remedy itself, and during the first season of its manifestation, it only ceased to be fatal when it ceased to appear.

In tracing the history of the disease as it appeared among us, we find that during those seasons when we were wholly exempt from it, we were visited by epidemics affecting one or the other portions of the mucous tissues. During the prevalence of dysentery in 1855, there were no cases of diphtherite. The earliest cases in 1854 were characterized by much sloughing after the false membrane gave way, as if the whole parts beneath were destroyed prior to the yielding of pseudo membranous formation. This peculiarity attending some cases gave rise to a differential diagnosis; and by many who saw them, it was regarded as ulcerated, or putrid sore throat, and treated accordingly.

The throat presented a horrible appearance, and no remedy, as then applied, seemed to exercise any influence whatever. Our patients passed rapidly from worse to worst, and the disease stalked beyond our skill, side by side with death. In other cases there was no sloughing at any stage of the disease, and the mucous surface presented little or no change after the disappearance of the diphtherite. I believe that those cases where sloughing ensues, belong to the strictly asthenic class, and the others to the sthenic, if the word sthenic is at all compatible with diphtheria. Since 1855 we have had an annual visitation of diphtherite in the throat, to a greater or less extent, present only during the absence of other *diphtheritic* affections of the mucous membranes; and I must say that our success in its treatment has been much more decided. There is some difference in the nature of the local appliances, but they all tend to the same end, and are used for the accomplish-

ment of the same object ; and although the disease is a source of much dread, it is at least now within the range of rational and frequently successful treatment. In many, if not all the modes of managing a case of diphtheria, the medication has been predicated upon the fact conceded that it is a blood lesion, and remedies are directed to the removal of the poison from the system, while little or no attention is paid to the deposit in the throat. Our patients did not die of diphtheria, they were killed by diphtherite. We do not think that in any case the blood lesion destroys life, but it is the result of that lesion manifesting itself in the throat, and producing occlusion of the air passages. Our cases therefore would not, and do not recover from any general or systemic treatments, from the fact that they die before the remedy could produce the desired effect. When the result of a disease destroys life in four, eight or twelve hours after discovery, it seems to me that any medicine relied upon to assist nature in eliminating the poison from the system, and thereby effect a cure, is certainly a *rope of sand*.

It was thus, and with such fatal and rapid effects, that the disease manifested itself with us ; and it is therefore not strange, if after wading through page after page of essays on diphtheria, we should be astonished at finding no recommendation of any agent, or agencies, to stay the spread of diphtherite in the throat. All that could be gleaned was a recommendation to "buy the lock after the horse was gone." I only allude to the papers I have read, and they are not a few. It may be that the suggestions designed to be embodied in this paper, have already been better completed by him who saw the disease as we saw it, and who discovered earlier, that the way to cure *diphtheria* is by curing *diphtherite*.

This apparent paradoxical assertion will, I think, admit of an orthodox explanation. Diphtherite is first discovered, in a great majority of cases, upon the tonsils, and free end of the uvula. In rare cases, the buccal and labial membranes were found with patches on them ; but its favorite habitat is upon the first named parts. Its tendency is downwards and backwards ; and in this it differs from its kindred affection, pseudo

membranaceous croup, which starts from the air passages and travels upwards. If the discovery is made prior to the time of its extension to the posterior fauces, or on the epiglottis, it is amenable to treatment with some show of success. If the glottis, larynx, and trachea, are involved, it is at least a matter of exceeding doubt. It has been claimed that a successful termination has followed treatment, after the last mentioned parts were involved, but they are certainly exceptions to the rule; and I must confess that my faith is predicated not upon any success of my own, but upon that of my brother practitioners, whose skill and judgment are unquestioned.—Of the evidence of its presence in the air passages, and the treatment under the circumstances, I will speak fully before I have done. In speaking of the general treatment, we would endorse that which is of a tonic and alterative character, in so far as it has a tendency to support the vital powers, and assist in removing the blood lesion; but with the pathological manifestations which accompany the disease, we would deprecate the idea of relying on it alone, as it is less than a *slender reed*.

I said previously, and I again repeat it, that our patients die from the mechanical obstructions of the air passages, which produces suffocation; and that the cause, proximate or remote, did in no case destroy life. I do not think there is any organ or organs essential to life, which will yield to the influence of the poison of diphtheria, and produce dissolution; but there is one point which must be carefully guarded from its encroachments, and sufficiently protected against its attack, or your patients will, in a majority of cases, die. If this be true, the first duty forced upon the medical attendant, is the prevention of the extension of the disease downwards or backwards in the fauces, or from the anterior portion of the throat to the air passages. The invasion of the air passages is the *fons et origo* of that which induces death. This is the point which must be successfully protected, or your patients are always in danger, and the chances strongly against them. If you can use applications locally, which will prevent the formation of diphtheria between the tonsils and glottis, and thus prolong the life of your patient, I believe the disease will

run its course, and under the efforts of nature, the poison be eliminated from the system, and patients recover. Unless this is done, and that successfully, I believe that were all the systemic remedies in the *Materia Medica* brought to bear in a single case, not one would have a single chance for certain escape. If the ideas I have endeavored to convey, be correct, and the result of the disease as I have stated, true, certainly the suggestions relative to the treatment are based upon at least common sense; and I am sure it is the course we were compelled to pursue, after having been drawn from one resource to another by the fatality of the disease. Our belief in its asthenic character prompted an active tonic treatment, and although the degree of asthenia varied largely in different cases, yet we thought that in each one the prompt use of Quinine, wine and nourishing food, as supporters to, and Iodide and Chlorate of Potassa as alteraters of, the system, were indicated. I have been induced to admit the terms sthenic and asthenic, from respect to older practitioners, who classify it accordingly; yet I think when the wide distinction is drawn between the two phases of the disease, both of which demand, so far as our experience shows, a similar course of medication, it were well to drop them, and use the phrase *malignant* and *non-malignant*, as they certainly are the most expressive. The restoration and sustenance of the vital power was always a leading object, second only to arresting of the formation of false membrane in the posterior fauces and the larynx. For the accomplishment of this important end, I relied wholly upon the officinal Tincture of Iodine, applied with a probang. The object in view was the stimulation of the part, where the membrane was not already formed, and the application of a remedy which not only removed the semi-formed membrane, if it existed, but which, being absorbed, acted upon and altered the secretion from the vessels beneath. By this means we retain the diphtherite in "statu quo," and prevent its encroachments upon those parts of the organism where its approach is most to be dreaded, and where, once fully formed, it must in many cases prove fatal.

This is the BASIS of the only successful treatment of the disease as it prevails with us. It is therefore of the highest import that your remedy should be applied to the throat: and while the formation of false membrane is stayed in the anterior fauces, you may get time to operate on the blood lesion, if such a consummation is really essential to a cure. It has been suggested by one author, "that where early medication is resorted to, the disease may be apparently cured by absorption, but eventually re-appears and destroys life by operating upon a system already debilitated by the previous attack." I must confess that the idea of false membrane being absorbed, is with difficulty reconciled with the character of the formation, and I certainly have no testimony to offer to sustain the notion, or even give it the shade of plausibility. The idea of *real absorption of disease* is not only unmeaning, but ridiculous and preposterous. That the disease may be eliminated from the system, by the efforts of nature, is, I believe more than probable; and it may be that the effects would a second time appear, if the first manifestation of it was overcome by the recuperative power of the system, provided the poison was still in the blood. But I cannot see the force of the *idea* that a disease is *absorbed*, when it is admitted that its local habitation is the blood system. I believe that nature will do much, if not all, in curing the disease, if we can keep open the portals through which the supplies necessary to vitality are kept up; yet I would be unwilling to risk a case in the hands of nature alone, even after I had met the affection promptly in the throat. In no case that I have met, has the use of Quinine, Potassa, and the usual tonics and alteratives, been contraindicated; always, however, following an expectant course with regard to any symptoms that might arise indicating a special lesion, or constitutional derangement. It may be that in some cases the patient got well in spite of the constitutional tonic and alterative treatment; but I am satisfied that in no case would recovery have followed had not prompt and effective means been directed to the throat. I have thus endeavored to give an idea of the specific treatment which is our *sheet anchor* in controlling the disease. In commending

this course I am sustained by Drs. Ten-Brook and York, who treated the disease in the same locality, and under the same circumstances. Dr. Ten Brook relies upon a strong solution of nitrate of silver, to arrest the spread of diphtherite, applying it with a view to the accomplishment of the same end, which induces Dr. York and myself to use the Tr. of Iodine. I would give the iodine preference, because of its known action upon the absorbents, and would use it in diphtheria with the design of producing a like result, as when applying it to the cuticle, to arrest the spread of erysipelatous inflammation; and I must say that the nitrate of silver in my hands, has not proved as efficient, or as worthy of trust, as the high commendations of its endorsers would have led us to expect. The iodine is applied with a sponge saturated with the tincture, and to be of any benefit should be thrust firmly and far down in the posterior fauces. The limited strangulation of the patient will indicate the certainty of the remedy having reached the desired point.

If what I have written with regard to the disease is understood and appreciated, it will be manifest that an early discovery of the affection in the throat is essential to successful treatment. I would credit success in almost all cases to a diagnostic of diphtherite in the anterior fauces. Some cases are reported of recovery when the larynx and trachea were involved. This brings me to the consideration of one phase of the disease in connection with which I have no experience; still, as it may be an accompaniment of every case, I relate it here with the assurance that the authority comes from one, than whom no closer observer, or shrewder diagnostician is to be found in the state. Dr. York says "that when the false membrane has disappeared from view, and is no longer observable in the fauces, having been drawn before your remedies; and when aphonia is present accompanied by a stridulous cough, you may be sure that the larynx and trachea are the seat of fully formed, semi-organized diphtherite. Under these circumstances it is not judicious to use caustics or gargles in any shape, as they only add to the local irritation, and frequently hasten a fatal termination. There is no indication for the use of the

probang when there is nothing visable to operate on. Under such circumstances, reliance is to be placed upon tonics, anodynes, stimulants and the free use of chlorate of potassa, internally and as a gargle, with the occasional administration of an alum emetic, if the strength of the patient will not allow the expulsion of the secretions in the trachea by voluntary effort. It is in these cases that you are compelled to rely upon the efforts of nature in combination with a systemic treatment; and local applications so far from doing good become really hurtful." In connection with the above statement, relative to the disease in the air passages, the evidences thereof, and the proposed treatment, I would suggest that in some cases where all the indications of a tracheal invasion were present, I have not looked upon them as sure prognostics, that such was the fact. In those cases of recovery where there was an entire disappearance of the formation from the eye, followed by aphonia, sibilant rale, I have not attributed the changes to the presence of diptherite, but to congestion, resulting from its near approach, or to the irritation produced by local remedies. It may be that I was wrong, and that the disease was really present; but I thought I marked a distinction between the vocal sounds, in those cases where I was satisfied it was in the air tubes, and which always resulted fatally, and in those where the disturbance resulted from thickening of the vocal chords from œdema. Where diptherite is deposited in the larynx, the vocal sound is always preceded and succeeded by a peculiar whistling sound which cannot be mistaken, and is as easily recognized as the cough in croup, while, where the traction is occasioned by irritation, the voice, though hoarse, is characterized by a uniform rhythm. I have not hesitated in these cases to still continue the use of the iodine, under the belief, always that the aphonia was the result of contiguous irritation, and from the presence of false membrane in the air passages. But admitting that the symptoms were pathogonic of the presence of diptherite, may there not be an indication still for the use of the alterative application, with the same view that induced us to apply it to the throat above. The characteristics of the disease will aid us in giving plausibility

to such a course. We are satisfied that, from the little complaint relative to the throat made by the patient, the false membrane protects it from irritation by the passage of food. May not the same cause, when present on, and in the glottis and epiglottis, operate so as to destroy the sensibility of the part, and admit a portion of the remedy into the larynx and trachea, and thereby produce the same beneficial effect exerted on the parts above? This has been the reason which justified me in the use of the iodine after the disappearance of the membrane from view, and the inauguration of those symptoms which would indicate its presence below, without, however, as stated previously, being convinced that the disease was really present. I would strongly insist, in cases where aphonia is present, upon the use of the tonic and alterative treatment. The use of the local applications must be left to the judgment of the physician, who will of course be guided by the circumstances attending the case. In all stages of the disease, and under all constitutional modifications thereof, the medical attendants cannot err in exhibiting each and every remedy that tends to sustain life, in the employment of hygienic precautions; but all are, I conceive, secondary to the attention which must be directed to the throat. In classifying the disease I spoke of the malignant and non-malignant forms. It was an experience with the first that prompted the writing of the paper. We met the latter as exceptional cases, and they yielded to local applications alone in the majority of instances. There is more constitutional disturbance attending the malignant form of the disease, and a greater aptitude towards swelling of cervical glands; but in many cases, there is no greater amount of such indications than attends the non-malignant. It would be hard indeed, to say to which form of the disease belongs the greater amount of systemic derangement in the early stages. So insidious is its approach, and so rapid the passage to the condition of complete adynamia or prostration, that but little time is afforded to note the symptoms which attend a case in its descending stages.

In a resume of the ideas embodied in this paper, as bearing upon the treatment, I would say that, close attention to the

throat of all children who are within range of the disease—as *all* are liable to an attack ; the prompt application of iodine or nitrate of silver, between the part where the exudation is already formed, and the epiglottis ; the use of the application not oftener than once in twenty-four hours, are of the highest import. If aphonia with other indications exist, denoting the presence of the exudation in the air passages, the use of local remedies must be employed or discontinued, as the judgement of the medical attendant shall decide ; but experience commends a generous diet of essence of beef, eggs, milk, with the constant rational exhibition of that tonic which shall be best received by the stomach.

In submitting this paper, I have avoided, as far as possible, any indulgence in theoretical speculations. I have written at length, but have endeavored to impress forcibly the few important ideas which were wanting to fill the gap found in all the papers I have read. I know, if the germ can be culled, that the suggestions will be of no little importance to those who are likely to encounter the disease under the same influences, where the treatment recommended was, and is, successful. It is our best, and only reliance, and without it we would feel indeed powerless.

The topography of our Diphtheria may not be without interest. Paris is situated in the Eastern part of Illinois, within ten miles of the boundary line. It is on the edge of the grand prairie, and immediately adjoining the belt of timber which extends to the Wabash River. The country is pretty equally divided between prairie and timber. The first is more undulating than usual, from the fact that several small streams which empty into the Wabash, take their rise on it ; while the latter is considerably broken because of the streams running through it. About one-third of the country is under cultivation, while the rest is being rapidly enclosed. Its latitude is between 39° and 40° N., and Longitude 88° and 89° W. The disease was for a long time confined to the town, and since its appearance beyond its limits, the prairie seems to afford the elements for the development to a greater de

gree than the timber. Like all diseases incident to this locality, it is subject to malarious complications, and it is rarely that we meet a case, but that we anticipate a duplication of it in the neighborhood.

SELECTIONS.

Ergot ; its Natural History and Uses as a Therapeutic Agent. By E. N. CHAPMAN, M. D., of New York. Professor of Materia Medica and Therapeutics in the Long Island College Hospital.—Ergot (*Secale Cornutum*) is defined to be the disease seed of the secale cereale or common rye. Though more frequently found on this plant, yet others of the same family, the grass tribe—gramineæ—are often thus affected. In the wheat, (*triticum vulgare*.) for example, the spur is common, and it has been shown by the observations and experiments of Mialhe and Parcira to have the same chemical constituents and to produce a like action on the human organism. This parasitic growth possesses undoubtedly a fixed, established character on whatever plants it may be developed, not only when appearing in the grasses, where it has been observed in thirty-one species, but, also, when attacking the sedge family—the cyperaceæ—to which it is less natural. We know this must be so, from whatever source the ergot draws its nourishment, since, from recent observations, it has been established that this and all other fungi have laws of development as unvarying as those that preside over the growth of a tree or animal. The evolution of its germs, like every other form of life, is dependent on a suitable nidus, which can afford the materials for its increase. This is presented by the ova of the grain with its store of albuminoid products. These, elaborated by the plant for the perfection of the grain, are attacked by this parasite, and so transformed by a special, vital powder, that every vestige of original conformation disappears, and a new vegetative product takes its place. This product is the subject of our present observations.

It is called ergot, a name in the French for the spur of the cock ; *secale cornutum*, horned rye, in the Latin ; and Mutterkorn, or wombgrain, in the German languages ; the two former names originating from its form ; the last from the popular belief as to its virtues. Diverse opinions have been entertained as to its nature and mode of production.

Some regard it as a diseased condition of the seeds of the grain produced by the attacks of insects, or seeds perverted in their growth by climatic influences, as, for instance, excessive moisture conjoined with high heat.

A second view is that the ergot is a fungus, growing in the glumes of grasses in place of the ova of the grain, which it entirely supplants. De Caudolle, as early as 1855, and Guibourt, in 1849, both distinguished observers, adopt this explanation.

A third view combines the two preceding, and supposes that the spurred rye is the combined product of the morbid grain and the fungus, that its power as a medicine arises from this union, but which of the two was the most important was not decided. Quekett, Leveille, Phillipar, and others advocate this hypothesis, in which they are followed by Pereira, Wood, and most other writers. Mr. Quekett, by extended observations, showed that a fungus, the *ergotaetia abortans*, or *oidium abortifaciens*, first makes its appearance on the young grain in the form of a mildew, which, under the microscope, is found to consist of an infinite multitude of spores, which rapidly shoot into cobweb-like filaments, interlacing in all directions, and cementing anthers and stigmas together. This fungus was thought to be mingled with the remains of the decayed seed and the product to form the substance called ergot. Now, from the most recent investigations in vegetable physiology, we must arrive at the conclusion that the fungus, and the fungus alone, is the only indispensable and special constituent of ergot. Remove this, and we have no proof that any other state of disease in the grass tribe will cause a morbid product that possesses the toxic and medicinal action of this drug. We know that the bloom of spores on the ergot, appearing like a fine dust, when sprinkled on the flowering grasses or at their roots, will produce the parasite, and that seeds immersed in water containing them become ergotted. We know that the ova perish, literally starved, and that all of their store of albumenoid products, which naturally would be elaborated into starch granules, is appropriated in the nourishment of a parasite, which, by a vital power of its own, transforms starch into oil, and from a nutritious substance prepares a poison that mysteriously causes contraction in the uterus, and, long used, mortification of the extremities. We know that no trace of starch can be detected by iodine in this new substance, as there would be, were there any of the grain remaining unchanged.

This point is rendered still more certain by the discoveries recently made and established in regard to the laws of reproduction and growth of the humblest cellular plant, or even a plant of a single cell of microscopic minuteness, that are found to be as fixed as those regulating the life of higher organizations. In fact, all life seems to begin on the same level, only differing in the extent of its development, and the germ cells that eventuate in a human being pass first through all the stages of those of a plant. By the latest observations of Kolliker, in his recent work, it appears that the male germ originates in the testis as a globular cell with a cell-wall, containing from one to twenty nuclei, and that these nuclei are the heads of the spermatozoa, which are folded up in the cell. This cell-wall bursts by the time it reaches the rete testes and the spermatozoa, which are nothing less than elongated cells, are set free. I should state that this high authority has proven that the nucleus in all cells is likewise a cell with cell-walls containing a nucleus, (nucleolus,) and that this nucleolus is supposed by him to be constituted in the same way. The female germ-cell, in as far as can be discovered, is identical with all other cells wherever found, and has a striking analogy to that from the testis. The cell-membrane is named vitellin, the nucleus, germinal spot. In fact, there is no essential difference in any cells, whether of growth, exertion, secretion, or re-production. All have a cell wall, nuclei and nucleoli, and contain in their structure, especially in the cell-wall and nuclei, a protein substance that is universally present.

In reproduction the contents of the male and female cells mingle, and, at the present time, this mode of propagation is being established as the universal law of nature for every living thing. As late as 1855 and 1856, it has been satisfactorily demonstrated by Cohn* and Pringsheim† that the spores of fungi are fertilized in a mode precisely similar to that before known in regard to the ova of animals and flowering plants. The spermatozoids, first made known by these two writers, are proven to be strictly counterparts to the spermatozoa of animals and the pollen of plants. Universally the male cell has one or more filament-like projections in ceaseless motion, and this has been shown to enter the female cell wall either by its absorption or by the law of endosmosis. Then begin those changes that in one case form spores, in another a tree, in another an animal, and in another a man. Each starts from

* In *Comptes Rendus*, vol. 43, 1856, and *Ann. Sci. Nat. Ser. 4* vol. 5, p. 323.

† Royal Academy of Science, Berlin, Ma., 1855, and May 1856 and *Ann. Sci. Nat, Ser. 4* vol. 8, p. 363, and vol. 5, p. 250.

the same point—cells containing or their nuclei and walls being formed of, nitrogenized principles—and by a life-power each individual is involved according to his kind—first, however, passing through the stages of the inferior orders. To illustrate, the fungi belong to the lowest order of plants, the cryptogamous. Of these, on the verge of vitality, are those of a single cell, either globular or elongated; an example of which is afforded by the green scum on standing pools. A modification of this form of development is seen where the cells elongate to end in jointed filament-like prolongations, as in ordinary moulds or mildew. There is the bread mould and the cheese mould living on dead organic matter, and moulds nourished by the juices of living plants, as that causing the rot in potatoes, or that which has, for several years, destroyed the grape crop of Europe. The *ergotætia abortans* or *oidium abortifaciens* is a fungus of the same simple structure.

Now, it has been proven that all vegetation—the highest and the lowest—is dependent on a vital power seated in the cells. This life-force arises from the protoplasm or azotized principle they contain, and by its presence each cell, individually and independently, effects assimilation and nutrition, and the gross result is but the conjoined product of many cells. By the vitalism of these cells, under the influence of light, inorganic is converted into organic. Carbon, hydrogen, oxygen, and nitrogen are thrown into endless combinations, which chemistry cannot even imitate. The air and soil, gases and minerals are transformed into starch, sugar, acids, oils, vegetable albumen, fibrin, casein, cellulose, lignin, and the thousand other products of the vegetable kingdom. Thus we see that the plant, without a nervous system, affects a higher vital action than the animal, since the latter must have for its nutrition ready prepared and organizable materials, and cannot, like a plant, feed on the elements. The humble spore has a power of elaboration even greater than the human stomach. It changes starch into oil, and the nutritious grain-germ into a powerful poison, and, like every other living being, has a parentage that extends back innumerable generations.

I hope, therefore, that I have sufficiently vindicated the claims of this humble plant to a place in the ranks of the great and ceaseless procession of life that ever is passing over the stage of time.

Constituents.—The ergot is covered with a fine dust, which is the sporidia of the fungus. When examined under the microscope, it is found internally to be formed of cells con-

taining oil. After this oil is removed by ether, a substance may be obtained by boiling alcohol, which, by Wiggers, received the name of ergotin, under the supposition that it was the active principle. Bonjean removes the oil in the way mentioned, and from the residue makes a watery extract, which he also calls ergotin. F. L. Winkler obtained a volatile alkaloid, which he called secalin. Probably the active principle has not been isolated; yet, from our present light, I am disposed to conclude the watery preparations may contain it. At least, it is tolerably certain the alcohol is a poorer solvent than water, and that an infusion of fresh ergot rarely disappoints us. There are two principles in this drug; one the narcotic or toxic, which resides in the oil,* as we shall see, and the other the uterine motor-stimulant, which remains in the residue after it has been exhausted by ether.

As early as 1831-2, Dr. Charles Hooker, of New Haven, experimenting with the oil, gave it to a medical Student—3 ss. at 2 o'clock; 3 i. at 3 o'clock, and 3 i. at 4 o'clock. Intense narcotic symptoms were produced that did not entirely disappear for several days. The pulse fell from 85 to 65, and then to 36, and the respiration from 19 to 8 per minute. On using the same oil, in labor, no influence was observable on the uterine contractions, but on the child that of a powerful narcotic.

He used it in six cases of labor, employing from 20 to 75 drops, and though the pains were not increased, yet "the children for a considerable time after birth had a livid appearance, and respired with much difficulty and irregularity, with the ordinary symptoms of ergotism." In the experiments of Bonjean and Wright with the oil on animals, a similar train of narcotic symptoms followed, ending frequently in tonic or clonic convulsions and death. In the many experiments that have been made by others on animals, it has been shown that where abortion does not occur, yet as a general rule, the conception perishes, and after a time is expelled.

Hooker then used the residue that remained after the extraction of the oil, and found its alcoholic power unimpaired. Bonjean's experiments accord with those of Hooker.

We conclude, therefore, that the uterine motor-stimulant power exists in the watery preparations, and the poisonous principle in the oil, but what are the ultimate elements has not been satisfactorily determined.

* It is stated that the oil extracted by ether, on standing, separates into an upper and lower strata, and that these differ in their properties, the heavy kind causing uterine contraction. The want of proof of any such distinction has led us to pass over this point in silence.

History.—It has been long recognized that a smut or rust in grain has been the cause of epidemics, which in different seasons have committed great ravages in Europe. Formerly more than at present, from the surroundings of the people, filthy modes of living, bad food, the want of vegetables, and defective ventilation in their mud hovels, typhus plagues and spotted fevers were common; but there cannot be a doubt that these were rendered more prevalent and malignant by a diet of ergoted grain. This cause is rendered more palpable by the appearance of gangrene and mortification in many epidemics. The only wonder is, that these poor people, confined almost exclusively to such bread, could, any of them, escape with their lives. It must be, as suggested by Bonjean, that the heat employed in cooking, dissipates more or less the active principles of the ergot.

The oxytoxic powers of this drug have, from time immemorial, been known amongst the common people of Europe. This is shown by its vulgar name Mutterkorn or womb-grain amongst the Germans. The midwives on the Continent employed it so generally in difficult labor that its use was interdicted in France in 1774. Three years after, Dr. Desgranges, of Lyons, introduced the drug into general use amongst the profession, by published reports of its usefulness and efficacy, yet it was forgotten, until its knowledge was revived thirty years subsequently by Dr. Stearns, of Waterford, of this State. Drs. Akerly, Prescott, Dewees, Chapman, Atlee and others, confirmed the report of its power to excite the action of the uterus, and by their countenance to its use in tedious and difficult labors, rendered its employment in the lying-in room fearfully common. With pride they looked upon it as an American discovery, and as they were enlisted in establishing its claims, and committed to the foregone conclusion that it was a safe and efficacious remedy for expelling the child, they were, of course, blind to the causes of the increased infantile morality.

In France, Chaussier and Madame La Chapelle denied that ergot exercised any power over the uterus. In this they were followed by most of the obstetricians of Europe. Even as late as 1825 it had been scarcely tried, and the unbelief in its power was nearly universal. Even at the present day there is the same doubt, and the properties of our drug are thought to be of a very ambiguous, uncertain character; that, perhaps it may increase the pains when present, or on the eve of arising, but that it cannot originate uterine contractions nor cause abortions.

This is folly. Ergot either has or has not the power over the uterus—it will or will not cause contraction of that viscus when extended.

This we shall discuss by investigating its physiological action.

Animals generally manifest a strong, instinctive repugnance to the ergot, and where considerable quantities are administered, the toxic symptoms are pretty uniform. These are similar to the peculiar condition called ergotism in the human subject. Loss of nutrition, impaired nervous power, imperfect circulation, especially in the extreme capillaries, muscular weakness, sometimes gangrene, convulsions, and death. The pregnant female usually aborted, and where this did not occur immediately, the conception ordinarily perished, and was subsequently expelled.

That the action of this drug is the same on animals as on man, is shown by the experiments of Mr. Tonatt, who says, "I have for the last six or seven years been in the habit of administering the ergot of rye to quadrupeds in cases of difficult or protracted parturition. . . . The uterus has in every case responded: it has been roused to a greater or less degree of renewed action."

On man, ergot, in full doses, has a special narcotic action, shown by the reduction of the pulse from 10-20 pulsations per minute—giddiness, delirium, dilated pupils, trembling, weakness, unsteady gait, a peculiar intoxication, which the peasants, living on ergoted grain, seem to enjoy, as they would the excitement from alcohol or opium. By living on contaminated food for a length of time, the mind becomes dull and imbecile. There is formication, numbness, cramps, cold and livid extremities. Sometimes convulsions, and speedily mortification, which commences in the extremities and passes upward. It appears as though the narcotic paralyzed the nervous system, rendering the capillary circulation feeble at first, and then finally checking it altogether. Hence, the extreme vessels collapse and dry gangrene is the result. On this property is based the use of this drug in any of the different forms of hemorrhage. Continued doses are required for some time, and a near approach at least to this peculiar ergotic condition. But as we have a safe and far more reliable remedy in the persulphate of iron, or gallic acid, we scarcely should be justified in using so hazardous an article as this would be in persistent doses.

The second property of ergot, and the one for which it is mostly used in medicine, is the power which it has of contraction of the muscular fibres of the uterus. This effect follows, generally, within the hour, from small doses of from 20 to 40 grains, quantities that would occasion no symptoms of ergotism, or any of depression of the heart and nervous system.

Mode of Operating.—The ergot, like all systemic remedies, is absorbed, and thus, through the circulation, impresses the motor tract of the spinal marrow in that limited portion, wherever the uterine nerves take their origin. The muscular organs, contiguous and supplied by the same nerves, as the bladder, for instance, are, as it has been shown, subject to the same stimulus. Herein is comprised all of the valuable virtues of this drug. It is simply an excitant of the motor nerves of a limited portion of the body.

Strychnia is analogous in its mode of operating, affecting, however, the entire motor tract of the spinal marrow, but having no influences over the nerves of sensation or the brain. Both of these drugs act centrally, and thus arouse those reflex movements, of which the spine is the special seat.

The peculiar phenomena excited by ergot have been mostly studied in connection with its medicinal employment. In from 15 to 30 minutes after exhibiting a full dose to a woman in labor, the pains become greatly intensified and without intermissions, although there are remissions for a few moments, and then exacerbations. The womb is constantly hard like a stone, and at no time relaxes. The child is crushed firmly down, does not recede as in ordinary labor, and all the soft parts of the mother are subjected to an unremitting pressure, which in the exacerbations tells with fearful energy on both mother and child. There is no peace until either the child is born or the excitability of the uterus is exhausted. After labor, the uterus condenses into a hard globe, and does not have alternate periods of contraction and relaxation. That good ergot will produce this result with great uniformity I am thoroughly convinced, from a considerable experience. It is alleged by those who grant the power of the drug to increase the natural pains or excite them, when on the eve of arising at the full period, that at no time antecedent has it any such power, and that it cannot originate labor per se. This is an important question practically, and in a medico-legal point of view. During gestation, the uterine muscular fibres are increased many hundred times, and the nervous and vascular supplies are equally augmented. The fully-developed organ

would feel any special stimulus more sensibly than at any previous stage, when the instruments of its appreciation are less. Obviously the nearer the uterus is to its normal size, the less likely shall we be able to arouse it to contraction, and under the same circumstances, we shall be less likely to succeed in morbid distentions than in pregnancy, since in the latter case, it is in a high state of vital activity, whereas when a polypus occupies its cavity the muscular fibres are merely stretched asunder by an internal force. From my experience, I am certain that ergot has a direct power to excite the contractions of the uterus at all times when distended. In some most desperate case of flooding after delivery, where I had extreme difficulty in staying the flow until the medicine could be procured, I have seen it in fifteen minutes produce a firm condensation of the womb, and I have left my patient with a perfect confidence that the danger from this source could not arise again.

A lady, the mother of several children, and of a delicate, spare habit of body, was taken with the most alarming hemorrhage within an hour after delivery. The labor was rapid, with only two expulsive pains. Everything was drenched with blood. It was found that the womb would not contract on the hand in its cavity, and could only be imperfectly retained in a semi-firm state by ice in the vagina, friction with ice externally, and strong compression. She passed from one fainting fit to another, in spite of brandy, which seemed to produce little or no stimulation, and, beside, it was impossible completely to stay the flow that was adding to the collapse. Two drachms of powdered ergot had no effect. At the end of two hours matters had but little mended for the better; the chief change was occasioned by a slight rallying from the stimulus of the brandy. A fresh specimen of ergot was now procured and administered, and in twenty minutes, after giving an infusion of twenty grains, the womb began to condense its fibres, and in less than an hour, by repeating the doses, the uterine globe was firm and hard, with no alternate contractions or relaxations. In another case, resembling this in every particular, the ergot had the same effect.

In both, the exhaustion was so great as to render the response to stimuli imperfect and scarcely perceptible, although given with a liberal hand; yet the ergot, in spite of the want of a disposition in the uterus to contract, caused it to do so within twenty minutes, and not only this, but rendered its condensation firm and unremitting. Surely there cannot be a

doubt of a remedy that acts on the nervous centres when brandy produces little more effect than so much water.

In several instances where, from the death of the conception or the alarming loss of blood on the part of the mother, it has been necessary to hasten the miscarriage, I have rarely been disappointed in this drug. In one case I succeeded with it, where from a foetus in a putrid condition, the gravest typhoid symptoms had arisen, as shown by a pulse of 140 beats per minute, a dusky countenance, and a low muttering delirium. The lady was advanced to about the fourth month, and although the conception had probably been dead for three weeks, as at that time she fell insensible in puerperal convulsions, yet there was no indisposition to contraction in the uterus. The first prescription failed, but on the next day, the ergot was produced from a sample which I knew was good from previous trial. Within an hour its peculiar action was manifested, and this was continued by repeated doses until the foetus was expelled.

I saw a case with my friend Dr. Davol, which was even more remarkable. A lady, four months pregnant, had become reduced to such a condition of vital prostration and inanition by persistent vomiting and purging, that her case had been pronounced by us and another practitioner a hopeless one. There did not seem to be any chance for the induction of premature labor. After continuing in this way for three weeks, first the vomiting and then the purging abated. She seemed to rally considerably; took beef tea, stimulants, &c. Improving slightly, she was taken with uterine pains, which were, however, only momentary twinges in the back for 15 or 20 seconds at a time, recurring about every hour. The typhoid state was extreme as shown by her pulse, the want of response to the stimulus of brandy in ounce doses, the ecthyma covering her body, and a bed sore as large as a quarter of a dollar over the sacrum. The os uteri was dilated, yet there was not vital energy sufficient to arouse the uterus into action. For eight hours she took a preparation of ergot with no effect. We then procured another known to be good, as we had before used from the same parcel. In fifteen minutes, after taking twenty grains, she had a marked pain, which continuing three or four minutes, forced the uterus low down into the excavation. From the want of excitability in the nervous system the pain went off, but recurred again in the same manner from a fresh dose. The lady was delivered one hour and a half after the induction of the first ergotic pain. In neither

of these two cases, both of which took four drachms of ergot by infusion, were any of the narcotic effects of this drug observable, although the feeble condition of the patient was such as, in the opinion of many, to interdict its use.

I saw recently, with my friend, Dr. Gilfillan, a case of polypus uteri, where, in 48 hours, two drachms of the ergot was given in substance. At the end of this time, it was found that no pains had been excited, but the pulse was reduced from seventy-four to sixty-five beats per minute, and there was experienced a dizziness, heaviness in the head, and an uncertainty in muscular movements, showing conclusively that the nervous centres were affected. As the quality of the sample of medicine we were now using was evidently deteriorated, it was changed for a fluid extract, made from the ergot employed in the last two cases before mentioned. Of this there was administered fifteen minims, (the extract containing one grain to the minim) every five hours, until one ounce and a half was taken. From fifteen to twenty minutes after each dose, the pain would commence, lasting for about two hours, and having that constant tension so characteristic of ergot, when gradually it would subside, as the nervous excitability became exhausted. No effect on the pulse or other symptoms of ergotism were observable, notwithstanding the use of so large a quantity of the drug,—sufficient, had the poisonous principle still remained, in it, to have produced the most serious consequences. Before attempting the removal of the polypus, whose pedicle was attached to the fundus, it was thought that a dose of the medicine would bring the growth more in reach, and thus facilitate its removal. On examination we found the uterus relaxed, the neck soft and dilated, with no periods of contraction, and, in fact, the patient had been free from pain for several hours. The doctor, who very neatly and skillfully removed the polypus by torsion, stated that the body and neck of the uterus condensed themselves so firmly, that little space was allowed for manipulation, and his fingers became numb from the pressure. In his opinion there could not be a doubt—in this case at least—of the direct and positive action of the ergot.

Therapeutical Uses.—The employment of ergot in labor has been frightfully common in this country, arising, probably, from the fact that high American authorities recommended it as an expulsive agent, both to arouse the uterus when exhausted, and to increase its energy when its efforts, however vigorous, were insufficient. As in the normal process the child could not be born without pains, it was a natural conclusion

that these, when feeble, flagging, or incompetent to overcome the resistance, must be stimulated until our great object, the birth of the child, was attained. It is a *reasonable* doctrine that ministers to a convenient and seductive practice, gratifies our propensity to do something, contributes to our ease, and will undoubtedly save us several hours patient waiting. Of course, its advocates, fortified by a wonderful light from reason in the closet, never saw any harm resulting from it. They do not believe it would injure either mother or child, as though their medical creed made any difference with facts.

It was found, by M. Depaul, that, during active natural pains, the foetal circulation became greatly hurried, and at times could not be heard; but, during the intermissions, it gradually resumed its normal rythm. This is readily explained by the fact, that the child's blood is aerated through the influences of the mother's in the uterine sinuses, and the circulation in these sinuses and the arteries that supply them cannot go on freely when the muscular fibres are condensed. How much greater will be the danger to the child when, by ergot, the natural pains, are greatly intensified and the contraction is rendered permanent and continuous! The truth of this is rendered evident by statistics.

In 1850, the Academy of Medicine, at Paris, directed to investigate the influence of ergot on the life of the child, come to the conclusion that this was endangered both by compression and narcotism; in 1853, the Academy adopted the conclusions of M. Depaul: "that, except in miscarriage, in certain labors attended with hemorrhage, and occasionally at the conclusion of natural labor, paturient women would be the gainers by the complete disuse of ergot."

In one hundred and seventy-five cases reported by Busch, where ergot was given, seventeen children were born dead, and eight asphyxiated; of eighty, by Chatto, ten were dead; of forty-eight, by Hardy, thirty-four were dead; of sixty-four by R. U. West, nine were dead.

Dr. Stearns, who re-introduced this remedy into notice, and used it more cautiously than many do at the present day, lost his practice from a strange mortality amongst the children and a child-bed fever that followed him, like an evil genius, from door to door. There can scarcely be a doubt that one hour's ergot pain would be fatal to one half of the infants. They are literally smothered, since they are effectually shut out from the only source whence their blood could be supplied with oxygen. I should not deem it safe to administer the ergot in

- any case, unless I was quite certain that the child would be born in four or five vigorous pains. If, after giving it, the birth should be delayed more than half an hour, it would be more prudent to conclude the labor with forceps.

We should never use ergot as an expulsive agent—never where the pains have been, or are vigorous—never to overcome impediments, as a narrow pelvis or rigid perineum—and never in a primipara under any circumstances. In cases where the pelvis is large, presentation natural, all the parts relaxed, and the previous labors short, we should give it, if from a sudden inertia of the womb the child is left pressing on the floor of the pelvis, partially out of the womb. It might not be safe for the child or the mother to allow it to remain any time in this position, since the pressure might endanger the mother's soft parts, and as, more especially, the child might perish from a partial detachment of the placenta, or obstruction to the circulation in the cord. Either the ergot or the forceps will be required. Should the case appear to require the instruments, the ergot may still be requisite after delivery, to prevent post partum hemorrhage.

Flooding after Delivery.—In patients who almost invariably flood after the birth of each child—in all hemorrhage after delivery where the uterus is flabby and relaxed—the ergot is of inestimable value. It will, with great certainty, insure a firm contraction. In any case where we learn the patient floods after confinement, we should give the ergot before we leave the house.

Retained Placenta.—Some give this drug to remove the placenta when retained. A moment's reflection will convince us that this is a most unjustifiable practice. We have seen that the ergot influence causes a tonic, unrelenting spasmodic contraction of the uterus far exceeding the natural pains. We know that where the drug is not given, it is a difficult matter, two or three hours after delivery, to introduce the hand and remove the placenta. It would be scarcely possible to do so, if this natural condensation was rendered sudden and permanent by this potent agent. Ergot could not displace an adherent placenta—might not overcome an hour glass contraction; and, in the event of its failure, the difficulties of the case would be greatly augmented.

After Pains.—The after pains are often rendered more troublesome and persistent by a too lax uterus, allowing the blood to ooze freely into its cavity, when, from a diminished

irritability, contraction is only aroused by the stimulus of a greater distension. In such cases, where we have considerable show with each pain, I have found the ergot a most efficient remedy. Should the show be slight, and the pains arise more from nervous irritability, opium and camphor are indicated. The ergot would aggravate such a condition. With both too great a show and nervous irritability, ergot and opium conjoined would be found to answer the purpose. The union of these two remedies would not be improper, since the opium acts on the brain, and the ergot on a localized portion of the spinal marrow.

In Placenta Prævia.—Ramsbotham recommends this drug, for the purpose of holding in check any excessive discharge, until the os uteri shall be sufficiently dilated to admit the hand for the purpose of turning. If we have rightly comprehended the action of this ergotic power, the hemorrhage could scarcely fail to be augmented, and the version of the child be far more difficult; perhaps impossible, without undue violence. From the knowledge we have of the styptic virtues of the persulphate of iron, even in the wounding of considerable arteries, it would, undoubtedly, if pressed against the exposed placental vessels, effectually stay the flow of blood for the time. The iron could be easily and thoroughly applied through a speculum by means of lint.

Ergot in Collapse.—It is stated by Beatty, Griffin, and Barker that where there are evidences of great depression of the heart and nervous system, as shown by syncope, collapse, and a feeble or scarcely perceptible pulse; the ergot should not be given until this condition has first been removed by the use of the opium. It is asserted that the sedative property of the medicine would tend to prevent reaction, and directly and positively augment the prostration. Now, it is a fortunate circumstance, that as we suppose, the narcotic and ebolic principles can be separated, and we can produce one effect or the other at our pleasure; since, in debility, we wish to avoid any approach to ergotism, although the emergencies of the case may call imperatively for increased uterine contractions. In no one case have any symptoms of a narcotic action been observed where the infusion, or the fluid extract, have been administered. Hence, we conclude that in these forms we may use this medicine in the most profound collapse, and in any case, as in polypus or hydatids, for many days in succession.

Hemorrhage during Gestation.—The ergot could not be admissible at any period during gestation for restraining uterine

hemorrhage, since in moderate doses it could only act by causing contraction, and the induction of this condition would be almost sure to produce miscarriage.

To Induce Premature Labor.—Good ergot has undoubtedly the power to originate uterine pain, and it has been used for the induction of premature labor in cases where the pelvis is so contracted or deformed as not to admit of the passage of a full-sized child. By the tables of Ramsbotham and Hoffman, it appears that of thirty-eight children, prematurely born under the ergotic influence, twenty-seven perished. This practice should not be imitated where the child is viable, and there is a possibility of saving its life without endangering that of the mother. But, when the death of the conception, or other sufficient reasons, in regard to the safety of the mother, render the removal of the fœtus imperative, then the ergot affords us, probably, the safest means for this purpose, since the pains, from the imperfectly developed muscular structure of the uterus, cannot be excited to a degree that could endanger any of the soft parts of the mother; and more than this, the child's head would be readily moulded into a form suited to the passage.

Polypi, Hydatids, etc.—In all cases where the volume of the uterus is increased by any structure loose in its cavity—as hydatids—the ergot should be used for their expulsion, and in the case of polypi, the same remedy affords us the only means we have of bringing the morbid growth through and beyond the os uteri, so as to render its removal by torsion or ligature possible.

The dangers to the mother at the full period, from the negligent use of ergot, are a rupture of the body or neck of the uterus, rupture of the perineum, and injury to the bladder. The walls of the uterus at this stage are more than an inch in thickness, forming a hallow muscle equal in tension and cohesion to any other in the body. I can scarcely believe that any medicine, which merely calls out its excitability, can induce such violent contractions as to make a breach in its structure. We have no analogies to lead us to such a conclusion. The most powerful tetanic spasms, whether from disease, or poisonous doses of strychnia, never produce any such result; and where persons have suddenly and powerfully exerted themselves, the tendons have been known to give way, sometimes a few of the muscular fibres, but it must be a rare occurrence for a powerful muscle to be completely torn across. More than this, rupture of the uterus is less frequent in

primiparous women, where the resistance would be the greatest. I cannot but think that all cases of this accident in the body or fundus of the womb must arise through a softened condition of its structure from disease, and would occur, whether ergot was given or not; at least, it is well known that most of the cases were in persons with a deformed pelvis, who had, on previous occasions, been delivered with instruments. I have seen four instances of this sad and melancholy conclusions to labor; two in my own practice, and two in that of others. All had been confined from two to four times, and had one or more times been delivered with instruments. All were in the first stage of labor, the os uteri high up, and the pains insignificant and of a cutting character. In none was any medicine given, and in many cases, which happened in my presence, the rent took place during the absence of the pain; in one by sitting up in bed for a drink, and in the other on getting out of bed. In all there was a sharp projection of the promontory of the sacrum, unlike its natural rounded contour, which greatly encroached on the capacity and outline of the superior strait. During the latter months the womb and its contents, no insignificant weight, must have rested on this projecting ledge. The pressure might cause softening, or even death in the tissue, precisely as we observe in bed-sores, or in ulceration of the heel in fractures; more especially would this cause be operative, if the woman by a fall, misstep, or riding on a rough road, should cause the womb to strike forcibly on this projecting point, so as to bruise or cause ecchymosis into its tissue. The subsequent pressure would then be far more likely to cause softening. One of my cases seemed to date from the giving way of a night chair, which brought the woman with force to the floor. A post-mortem could not be obtained, excepting in the case just mentioned, and it was shown on dissection, that the ruptured portion was sphacelated, and near by was another point unbroken, through which the finger readily passed. In this and all the other cases, as was determined on introducing the hand for the purpose of turning, the solution of continuity was on the posterior face of the uterus, at the junction of the neck with the body, in a transverse line, so that the os was partially detached in the form of a ring.

Rupture of the Neck of the Uterus or the Perineum.—The conditions under which the neck of the uterus and the perineum are placed are far different. Their tissues must be distended, and fibres frayed out and elongated before the child can pass, and we know, by experience, that alternate periods of tension

and rest accomplish this object in the most satisfactory manner ; but should the child be pushed suddenly and forcibly forward, a rupture would be very apt to occur just before the dilatation was complete. The rent in the neck will generally commence on its free edge and extend longitudinally, or a rim of the os might be torn off. The capacity for resistance of these parts, thus thinned out cannot be compared to a powerful muscular structure more than an inch in thickness, that condenses itself at each pain.

The action of Ergot on other Pelvic Muscles.—If ergot is a motor-stimulant to the uterus, by exciting the spinal marrow at the origin of the nerves of motion in a specified portion, it follows, that other muscular organs contiguous and supplied by the same nerves should be also under the influence of the same remedy. On this ground it may be used in paralysis of the bladder or its neck and spermatorrhœa, where this arises from muscular atony. Dr. Mitchell, one of the council of this Institution, has attained the best results from its employment in this class of cases. Prof. Barker states that he never knew it to fail in retention of urine after labor.

A gentleman, æt. 35 years, had paraplegia on the right side several years since. He has less command of the leg on that side and a partial loss of sensation in the fore-arm and hand. Sometimes, frequent and irresistible calls to pass urine, that cannot be restrained, will torment him for several days ; at other times, for many hours, he is in pain from his inability to evacuate his bladder, when suddenly the flow will commence, over which he now has no command. In this case there was evidently a want of muscular power both in the bladder and spineter, alternating with a spasmodic condition. Fifteen drops of the fluid extract was administered four times daily, until one ounce and a half were taken ; when the medicine was discontinued, as now his relief from this annoyance was complete. Since his improvement dated from the commencement of this treatment, and nature with her expectant modes had never come to his relief in eight long weeks, the result was ascribed to the peculiar action of ergot. In this case no evidence of a narcotic impression were observable, either by a reduction of the heart's action or unwonted sensations at the nervous centres.

Ergot in Menorrhagia.—The ergot has been much given in menorrhagia, and in all other morbid conditions of the uterus, attended with a bloody discharge, as, for example, polypi,

fibrous tumors, ulceration of the os uteri, malignant growths, etc. So also in other forms of hemorrhage, hæmoptysis, hæmaturia, et cetera, the same practice is recommended and instituted by several writers. As before remarked, this drug can only act beneficially in arresting any form of internal hemorrhage through its narcotic principle, and to attain this end it must be persevered in until evidences of ergotism are shown in a reduction of the pulse and the supervention of abnormal symptoms in the great ganglionic centres. For this purpose we could not depend upon any preparation deprived of the oil, and in truth the oil would be the one alone fitted to fulfill the indications. Since, however, we are in the possession of more reliable and far less hazardous remedies, we should be scarcely justified in using one that may produce the most lamentable results.

The Ergot for Female Diseases.—The ergot has been employed through an obscure idea of its specific virtues for almost every disease peculiar to females; amenorrhœa, leucorrhœa, uterine and vaginal, and gonorrhœa, both of the male and female; yet, we need hardly to remark, there are no known properties in this drug to render it of the least avail in any disease of this character. Since we build our foundations on facts, and have little time for beliefs, opinions, and the dicta of writers, we shall thus briefly dismiss this head of our subject, with the hope, however, that this word specific will ere long be banished from our nomenclature, and that every man in the ranks of our great and noble profession will ever have a reason for the faith that is in him, established on such a basis; notwithstanding it has been scoffed and sneered at as empirical, we shall hold fast to all established truth which now and ever will be found impressed with the seal of Nature, unchanging and eternal.

In conclusion we will briefly recapitulate the main points, deduced from the data hitherto presented.

1st. The active principles of ergot are the products of a plant, the odium abortifaciens. These are peculiar to it, and are in no wise more dependent on the grain-germ, than any plant is on the soil that affords it nourishment.

2d. These principles—not as yet isolated—are, probably, two in number; one of which, contained in the oil, produces narcotic symptoms, and eventually gangrene; the other, remaining in the residue after the extraction of the oil, acts by

stimulation on the motor tract of the spinal marrow at that limited portion whence the uterus and contiguous muscles receive their nerves of motion.

3d. The oil is alone efficacious in any form of hemorrhage, excepting in that from enlarged uterus, and we can only look for favorable results when the system has been brought under its influence, as shown by a narcotic impression on the brain and heart.

4th. So hazardous a treatment cannot be countenanced; since we possess other remedies of known virtues, not only more reliable, but unattended with any risk.

5th. The watery preparations, which, lacking the oil, can be given many days in succession, will act on the motor tract of the spinal marrow, but will not induce ergotism or other evidence of a narcotic poison.

6th. Ergot of good quality causes the uterus to contract with great certainty whenever its cavity is distended, either by a fœtus or a morbid growth. These contractions are tonic and continuous, with periods of remissions and exacerbations.

7th. Hence, this remedy may originate uterine pains at any period of gestation, or cause the expulsion of clots, hydatids, or any other unattached substance.

8th. Likewise, after labor, it will check an excessive flow by closing the mouths of the bleeding vessels through a condensation of the muscular fibres of the uterus. In relaxed conditions it will be, on the same principle, beneficial in after-pains attended with a copious show.

9th. Since we know of no other mode by which ergot can immediately arrest hemorrhage from the pregnant uterus, it should be avoided in all cases where a hope still remains of saving the conception, and its agency invoked only when the fœtus is dead or the safety of the mother becomes our first duty.

10th. In premature labor, induced by ergot, or in labor at the full period, where this drug is given, the child's life is jeopardized in all cases, where for a considerable period previous to the delivery, the uterus is thrown into violent spasmodic action; since thus the supply of oxygen will be most effectually cut off.

11th. Where the child is viable, the ergot should never be used as an expulsive agent to increase pains, already powerful, or overcome resistance from the soft parts of the mother.

12th. It may be required in cases of inertia of the uterus where, with all the parts relaxed, we are quite certain, both from the present appearances and the history of former labors, that the child would be born in four or five vigorous natural pains.

13th. The dangers to the mother from the use of ergot, arise from the uterus thus stimulated, rupturing the unyielding parts in its transit. Thus the neck of the uterus, the bladder or the perineum may receive serious injury.

14th. Rupture of the uterus could hardly occur, excepting in a diseased organ.

15th. A premature fetus from its small size and the yielding nature of the cranial bones could scarcely, under any uterine effort, cause damage to the soft parts of the mother.

On Pelvic Measurements. By W. H. BYFORD, M. D., Prof. of Obstetrics in the Med. Dep. of Lind University.—The subject of pelvic measurement is of so much importance, obstetrically, that various modes and instruments have been devised and invented for its correct accomplishment at different times: yet there is no one that gives exact results for all parts of the cavity and straits, and probably all combined, as they are now used, will only enable us to arrive at proximate instead of absolute certainty in this respect. I have examined the writings of all the authors of books and articles in the periodicals within my reach, and the result is as I have stated.

Under these circumstances, I hope it will not be regarded as presumption for me to give a plan which I have taught for the last three years, and demonstrated to the medical classes who have honored me with their attention. These demonstrations have been upon the cadaver entirely, and I have only tried it once upon the parturient patient: but I believe the common sense of the plan will commend itself to the profession sufficiently to insure a trial. The instrument I use is Baudelocque's calipers. The instrument should be constructed with flexible and movable shanks, so that the convexity of their axis can be altered, or that they may be entirely straightened, or one flexed more than the other. The scale for measurement between the shanks cannot be relied upon, in

the altered flexures of them, for anything but a rule by which we may readjust the instrument after withdrawing, so that we may measure the distance between the balls upon the extremities, and thus find how far they were separated when in the pelvis. Bearing this in mind, when we wish to measure the antero-posterior diameter, we place the balled extremity of one of the shanks on the upper part of the inner surface of the symphysis pubis, and the other opposite to it upon the external surface, observe the position of the shanks upon the scale, remove the instrument, replace the shanks upon the scale as they were while applied, and then measure the distance between the points. This is the thickness of the pubis and the soft parts covering it, inside and out. Now place the point of one of the shanks upon the promontory of the sacrum, and the other upon the spinous process of the last lumbar vertebra, observe the marks upon the scale, withdraw the instrument, readjust the shanks upon the scale, and measure the distance between the points, when you will have the thickness of the pelvic wall of the superior strait. Now place the point of one shank on the front of the pubis at its upper edge, and the other on the spinous process of the last lumbar vertebra, and this will give us the thickness of both anterior and posterior walls, and the plan of the superior strait: by subtracting the two former from this whole measurement, we get the exact measurement of the strait itself. Now by introducing one shank into the vagina, and placing it upon the middle of the linea ilio-pectinea, and placing the other upon the great trochanter outside opposite, we have the thickness of the side wall of the superior strait. Place one point on each great trochanter, and we have the aggregate measurement from one side to the other. By deducting the thickness of the walls, thus ascertained, from the whole sum, we have the exact length of the bilateral line of the superior strait.

It seems to me that there is nothing more simple and exact than the above mode of arriving at correct measurements of the superior strait. The same *mode* of proceeding will give as satisfactory results if applied to the cavity or inferior strait. I hope that members of the profession, who have charge of institutions where they can test the validity of the above mode of measuring the pelvis, will give it a trial, and publish their experiments and conclusions.—*American Journal of Medical Sciences.*

Influence of Tobacco Smoking on Public Health.—Sir CHARLES HASTINGS read a paper on this subject before the National Association for the Promotion of Social Science. He commenced by observing that it might be considered one of the functions of the Association to point out the evil effect on public health of certain active agents in daily use by the community. The one to which he would especially draw attention was tobacco. Tobacco is at present extensively consumed by all classes; it is a very active narcotic agent; its empyreumatic oil acts most deleteriously on the nervous system; and when it is concentrated, death results from it. The author then quoted the account of the chemical nature of tobacco, as given by Professor Johnstone, of Durham, "that the chemical constituents of tobacco are three in number: a volatile alkali, and an empyreumatic oil. The volatile oil has the odour of tobacco, and possesses a bitter taste. On the mouth and throat it produces a sensation similar to that caused by tobacco smoke. When applied to the nose it occasions sneezing, and when taken internally it gives rise to giddiness, nausea, and an inclination to vomit. The volatile alkali has the odour of tobacco, an acrid, burning, long-continuing, tobacco taste, and possesses narcotic and very poisonous qualities. In this latter respect it is scarcely inferior to prussic acid, a single drop being sufficient to kill a dog. Its vapour is so irritating, that it is difficult to breathe in a room in which a single drop has been evaporated. A hundred pounds of the dry tobacco-leaf yield about seven pounds of nicotin. In smoking a hundred grains of tobacco, therefore, say a quarter of an ounce there may be drawn into the mouth two grains or more of one of the most subtle of all known poisons. The empyreumatic oil is acrid and disagreeable to the taste, narcotic and poisonous. One drop applied to the tongue of a cat brought on convulsions, and in two minutes occasioned death. The Hottentots are said to kill snakes by putting a drop of it on their tongues. Under its influence, the reptiles die as instantaneously as if killed by an electric shock. It appears to act nearly in the same way as prussic acid. Experience proves that a large proportion of those who smoke or chew tobacco, do so under the conviction that it is always innocuous in its effects, and often beneficial. Now, this is a mistake which the every-day observation of medical practitioners can attest. For among the patients who consult us for various nervous and stomach complaints, it will be found that tobacco smokers form a large proportion. Indeed, we find, unexpectedly sometimes, on inquiry, that the habit of smoking is the source of very distressing ailments, which immediately or

gradually subside on omitting the use of this drug. It is grievous to observe that this habit is prevailing among young people, upon whom its effects are most likely to be prejudicial. Strikingly illustrative of this position is the fact, which has been very recently made public, that in the competitive examinations to which young persons are submitted in the military schools in France, the smokers of tobacco occupy the lowest place."

One of the most severe cases of epilepsy which Sir Charles had ever seen was in a boy of twelve years of age, who had been for two years a tobacco-smoker; he recovered only on being prevented from continuing the habit. It could, no doubt be said, and it was true, that thousands pursue this practice without producing epilepsy; but many of these suffer from nervous and digestive disorders.

It was, then, important that the Association should disseminate sound views on the action of tobacco, and should show that this drug cannot be used indiscriminately. An admonition from such a body would come with more force than from the medical profession, whose admonitions could only find way among the sick and those needing medical care, while the opinion of the Association would permeate the community at large. Sir Charles Hastings then quoted from the opinion of Sir B. Brodie on the effects of tobacco on the nervous system.

The various institutions now formed and supported for the purpose of diffusing useful knowledge among the laboring classes, ought to be available to assist in this work, if their managers could be made awake to the importance of the question; but, in many instances, these societies are not aware of the baneful action of tobacco on the frame. If they were, smoking-rooms would not form a part of the establishment, whereby the onward progress of civilization is proposed to be insured. It is a sad reflection that it should be considered necessary to insure the attendance of members at a society whose professed object is to advocate civilization by diffusing art and science, that there should be the means supplied for indulging in the evil habit of smoking, as in the clubs of the aristocracy. This Association may at any rate raise a warning voice against such erroneous proceedings, which must doubtless tend to enervate our population, and eventually to produce a degenerate race.

Sir Charles Hastings ended his paper with the following conclusions:

The effects of tobacco-smoking are chiefly dependent upon an empyreumatic volatile oil, and other active principles, whose direct tendency is to act injuriously on the nervous system and digestive organs. That tobacco is extensively consumed by the community, and its use ought to be discouraged. That this Association emphatically records its conviction that societies formed for the purpose of promoting useful knowledge amongst the working classes, should on no account provide smoking rooms for the members.—*British Med. Jour.* Oct. 6, 1860.

Treatment of Diphtheria, Inflammatory Angina and Croup, by the Perchloride of Iron, by M. AUBRAN.—The author read a paper with the above title at the meeting of the Academy of Sciences, December 7th. The following is his plan of treatment: "I put from twenty to forty drops of perchloride of iron into a glass of cold water, according to the gravity of the disease and the age of the patient. The patient must drink a swallow (about two dessert spoonfuls) every five minutes while he is awake, and every quarter of an hour during sleep. Immediately after each dose, a swallow of cold milk without sugar should be given. This treatment must be continued with regularity for several days, without respect to sleep for the first three days. Experience has taught me that it is only at the end of the third day that false membranes begin to soften and be detached. This solution of perchloride of iron ought always to be administered in a glass or porcelain vessel, so as to avoid the decomposition which takes place when it comes in contact with metal. I forbid all drinks and nourishment susceptible of decomposing the iron. In general, during the first three or four days, I do not give anything but the solution of perchloride of iron and cold milk. Local treatment is secondary, and may even be entirely omitted. The internal treatment is sufficient in the greatest number of cases. Administered from the beginning of the disease, this medication will cure the oftenest without an operation. If the progress of the croup is very rapid, or if the medication has not been given until an advanced period of the disease, tracheotomy may become necessary, but the perchloride of iron should be continued, for it is it alone which will cure. Of thirty-nine cases, during the first three days thirty-five have been cured; two cases only have required tracheotomy, from the beginning of the treatment. It was continued scrupulously, and a cure resulted in the two cases, in spite of the gravity of the disease, as the diphtheritic membrane had invaded the bronchia to a great extent."—*Cin. Lan. & Observer.*

The Smithsonian Institution.—The total amount of the bequest, as received into the treasury, was \$515,169; interest on the same to July 1846, devoted to the erection of the building, \$242,129. In addition to these \$135,000 of unexpended income has been invested in State Bonds, so that the present income of the Institution is \$38,325,14. The principal expenditures are, for salaries, about \$9,000; for publications of all kinds, \$9,000; for meteorological observations, \$2,500; for lecturers, \$1,000; for the library, \$3,500; for museum, \$2,000. There are some incidental matters involving expenditure, and about \$5,000 is set apart from the income to make a certain financial change for the sake of economy. The collections of various kinds which had accumulated at Washington, have now been concentrated at the Institution, Congress agreeing to make an appropriation of \$4,000 annually to keep them up. They are such as the collection of the Exploring Expedition, under Captain Wilkes, in South America and the South Seas; that of Lieutenant Herndon's exploration of the Amazon; Capt. Stanbury's exploration of the Great Salt Lake; Captain Perry's Japan collections, etc., etc. This museum is stated to be now superior to any other in this country as a general collection, though in the specialties of exotic birds, shells, fossils, and minerals, it is said to be surpassed by the Philadelphia Academy of Natural Sciences. We are glad to see that the Secretary who has charge of this department looks forward to the object of "having a public museum, illustrating as fully as possible the natural history of the world, and taking rank with those of London Paris, Berlin, and Vienna."—*Washington Star*.

Position a Remedy for Stertor.—Mr. Bowels, after repeated trial, assures the profession that stertor in apoplexy, etc., is immediately relieved by turning the patient well on his side, so that the paralyzed tongue and velum palati will fall forward, and the mucus drain away. Very soon, also, the phenomenon of partial suffocation accompanying the stertor, will disappear.—*Cin. Lancet & Observer*.

Iodide of Amonium.—This drug is reputed valuable in all cases where potas. iod. is indicated, particularly in constitutional syphilis. Its claimed advantages are: greater acceptability to the stomach, its effect more rapidly produces, and the quantity required less. From two to sixteen grains given per day.—*Cin. Lancet & Observer*.

EDITORIAL.

Report of the Committee on Medical Education, presented to the Academy of Medical Sciences, Jan. 4th, 1861. By N. S. DAVIS, M. D., Chairman of the Committee.

According to the by-laws of the Academy, the Committee on Medical Education are requested to "take cognizance of the systems of Medical Education, private and public, in this city and State, as compared with such as are elsewhere in use," &c., &c.; and are requested to report "at least once a year to the Academy."

In fulfilling the duties thus imposed, the Chairman of your Committee would respectfully submit the following report :

In regard to Medical Colleges, we would report that there are two in the State, both of which are located in this city. Several years since attempts were made to establish Medical Colleges at Jacksonville, at St. Charles, and at Rock Island, but without success.

The Rush Medical College of this city, with an independent charter from the State Legislature, commenced an active existence in 1842, and has continued in successful operation to the present time. Its plan of instruction is identical with that adopted by a majority of the Medical Colleges in this country ; consisting of one annual College term of sixteen weeks, during which all the branches of medical science and art are taught by lectures and demonstrations. Its requisitions for graduation are the same as those usually adopted, viz : three years study, two courses of lectures, during at least one of which, the candidate must have attended to Practical Anatomy and Hospital Clinical instruction ; the attainment of twenty-one years of age ; the possession of a good moral character ; and the ability to sustain an examination in the several branches taught.

During the past history of the Rush Medical College we believe, it has adhered practically to these regulations as faithfully as any Medical College in our country. Its several Chairs have been occupied by men of talent, some of whom, like the professors of Surgery and Chemistry, have held their

position from the foundation of the school to the present time, and have attained a high reputation in their respective departments.

The prosperity of the school has been maintained with much uniformity. During the last ten years the number of students in attendance has varied from 100 to 150; the latter number being present, if we remember right, during the session of 1856-7. We are informed that the class in attendance during the present session, numbers about 145.

Besides the several courses of lectures embraced in the College curriculum, the students enjoy the advantages of one or two College Clinics each week, and so many of them as choose to take the tickets, have access to the several Hospitals in the city.

The second Medical College in this city, is the Medical Department of Lind University. It was organized in 1859, and its first annual course of instruction was given in the fall and winter of 1859-60; and its second course is now in progress. The plan of organization adopted by this department of the University, differs from that adopted by the great majority of Medical Colleges in this country, in three important particulars, viz: in the length of the annual session; in the greater number of professorships; and in the division of the students into Junior and Senior classes.

The regular annual lecture term is five months; commencing with the first week in October, and ending the first week in March. There are thirteen professorships, viz: one of Descriptive Anatomy; of Inorganic Chemistry; of Physiology and Histology; of Materia Medica; of General Pathology and Public Hygiene; of Surgical Anatomy and operations of Surgery; of Organic Chemistry and Toxicology; of Obstetrics and Diseases of Women; of Practical Medicine; of Practical Surgery; of Medical Jurisprudence; of Clinical Medicine; and of Clinical Surgery. The first five departments named, together with Practical Anatomy in the Dissecting room, constitute the Junior course; while the remaining departments make up the Senior course. In the Junior department there

are four lectures daily throughout the term. In the Senior department, there are also four lectures in the College, and one Clinic in the Mercy Hospital, daily, throughout the term. In addition to the daily Hospital classes, there is a Surgical Clinic in the College every Wednesday, and a Clinic on Diseases of Women and Children, every Saturday.

The foregoing plan was adopted by this institution, for the purpose of rendering the study of Medicine more systematic or methodical, by compelling each student to concentrate his attention upon the more elementary branches, until he could sustain a fair examination therein, before he could advance to the more practical departments; and at the same time, by increasing the length of the lecture term and doubling the number of professors, to make the entire field of College instruction much more extensive than in the ordinary College courses. Another prominent object was to elevate the departments of Clinical Medicine and Surgery to their proper position by making them a part of the regular daily course of instruction in the Senior department. The requisites for graduation are the same as we have already stated in reference to Rush Medical College. The number of students who attended the first course in the University was thirty-three; and the present class numbers fifty.

Though this department of the Lind University is not yet two years old, it has made rapid progress in the accumulation of the means of illustration and study. Its Museum already contains 2970 specimens, belonging to the departments of Anatomy, Surgery, Obstetrics, and Pathology. The chemical Laboratory is well filled: and the Library contains near 700 volumes. We have thus briefly noticed the two Medical Colleges in our city. We believe they are an honor to the city and the State, and are worthy of the fostering care of the profession and of the community generally.

Private Instruction.—Previous to the organization of the Medical Department of the Lind University in 1859, no arrangements had been made in this city for the systematic instruction of Medical Students, during the interval from the

close of one lecture term to the opening of the next. But the feelings of rivalry engendered by the organization of a new school, soon caused an organization to be effected under the auspices of the Rush Medical College, consisting of six or eight of the more enterprising and active practitioners of this city, for the purpose of systematic summer instruction; embracing examinations, lectures, and clinics. Its plans were carried into successful practical operation during the summer of 1860, at least, from the first of March to the first of July.

The faculty of the Medical Department of Lind University also adopted, as a part of their system of medical instruction, arrangements for a systematic course of summer study. This plan was so arranged, that the students would have one examination, with familiar explanations, and one clinical lecture each day, throughout the whole interval, from one lecture term to the next. This plan was carried out by the faculty, and attended by a regular class of students during the past summer.

Hospitals.—There are, at present, three hospitals in the city, in each of which clinical instruction is given to some extent; and each of which, consequently, becomes an important aid to the education of the profession.

And although these institutions are small, compared with some of those in the older eastern cities, yet we doubt whether there is a city in the Union, in the Hospitals of which, a greater amount of clinical and practical instruction is given at the bedside of the sick, than those of our own city.

If the foregoing representations are correct, it will be seen that we have in our midst, not only two well organized Medical Colleges, but also all the facilities both for private and clinical instruction, that can be found elsewhere; and consequently, that Chicago is not more a centre of commerce, than a seat of medical instruction. It was feared by many in the profession, that the organization of a second College here, would merely divide the patronage that had hitherto hardly been sufficient to sustain the first, and thereby prove an injury to the profession. Experience has shown those fears to have been groundless. On the contrary, the organization of the new

school, has incited the faculty of the old one to greater exertions, to the organization of private courses of instruction, to more extended hospital and clinical advantages, and consequently they have drawn to their lecture rooms an increased number of students. Hence, instead of one school maintaining instruction sixteen weeks annually, to a class ranging from 110 to 150, as was the case prior to 1859, we have now two schools, with collateral organizations for medical instruction all the year, the one with a class of 145, and the other of 50, making an aggregate of 195 students now receiving instruction in the city. And we predict, that if the faculty of each school, shall continue a liberal and honorable emulation; each striving honestly to make the institution to which they are attached, worthy of the patronage of the profession, five years will not elapse before the aggregate number of students assembling annually for medical instruction in our city, will reach from three to four hundred,

One of the greatest obstacles in the way of elevating the standard of medical education, is, the inordinate hurry of students to enter upon the practical duties of the profession. Many of them can hardly be induced to read a work on Anatomy before they become impatient to take up a work on practice. So they can scarcely get through one College course of lectures, before they must enter upon practice. We hold it to be the duty of every member of the profession, as well as of the Colleges, to discourage this tendency, and to insist on a full period of study, and a full share of that study to be devoted to the fundamental branches of medical science. All of which is respectfully submitted.

ANESTHETICS.—The following letter from Dr. Prince will be read with interest:

JACKSONVILLE, JAN. 17th, 1861.

Prof. Davis—Dear Sir: In reply to your "request" in the December number of the Examiner, I reply that I commenced the use of Chloroform in Surgical operations and in cases of parturition immediatly upon its introduction by Prof. Simpson. I had been previously using Ether, and I was at once greatly

pleased with the superiority of Chloroform in its pleasantness to patients, and the speediness and completeness of its effects. I never saw any unhappy results from its use, but I soon became alarmed by the multiplied cases of fatal results, reported in newspapers and medical journals.

In 1850 I found Dr. Mussey (in Cincinnati,) using a combination of three-fourths of Ether and one-fourth of Chloroform, *by bulk*, and I have used this combination ever since. I have not used unmixed Chloroform for Surgical and Obstetrical cases for ten years. I have sometimes used Ether alone, but not often.

In two cases, respiration ceased while patients were under the influence of this mixture. In the first of these cases, the patient lying upon his side, horizontally, was undergoing an operation for excision of a cancer of the lower lip, and the formation of a new lip. The respiration suddenly ceased. No time was lost in turning the patient over, *to* and *fro*, according to Marshal Hall's "Ready Method," The patient breathed again, and the operation was proceeded with. I, at the time, attributed this to blood in the glottis.

In the next case, the patient was lying upon a bed about to undergo amputation of the leg. The assistant, who was administering the anesthetic, said that the patient did not breathe. The patient was immediately turned upon his side, upon his face, and back upon his side, and then upon his back, repeating this process *to* and *fro* about sixteen times a minute, and pausing a little each time the patient came upon his back, side and face. Not many of these semi-revolutions were required, to restore respiration, which commenced with a gap. A methodist minister who was standing by as a spectator, remarked that the patient had been nearly enough "across the river, to hear the horn blow on the other side."

As soon as respiration was completely restored, the operation was proceeded with, more of the anesthetic being administered as it was needed.

A Fatal Case.—A dog was being rendered insensible for a Surgical experiment, when his breathing was noticed to cease.

He was immediately turned over to and fro, and the breathing commencing with a gap, went on as before. The experiment was then performed, and the dog made a good recovery. At another time the same dog was undergoing a different experiment, when his breathing was noticed to cease. He would have been instantly turned over as on the former occasion, but that it was a little inconvenient to stop the process for that purpose. The blood did not flow as freely as it was expected to do, and the process, (testing Simpsons *accu-pressure* for controlling hemorrhage,) was suspended to turn the animal over, but to no purpose; too much time had been lost. If the "ready method" had been resorted to immediately on the cessation of respiration, I have no doubt it would have been as effectual as in the other instance with the same dog. A little impatience at being interrupted cost the animal his life.

Without stopping to reason much upon the matter, these propositions must be plain enough :

To secure a *speedy* entrance of air into the lungs is the one thing needful.

To turn the patient over, to and fro is the *speediest* method of securing the one thing needful.

Therefore, this expedient should in all cases be first resorted to.

It should be resorted to in all cases *immediately* upon noticing the cessation of inspiration, at whatever inconvenience.

If the patient is in the sitting posture, he should be *immediately* thrown upon the floor and rolled over.

It follows that a man of caution, who entertains these views, will never give a patient an anesthetic with such surroundings as to render it impracticable to turn him over, to and fro, upon the occurrence of any, (even suspicious) flagging of respiration.

What has been said, leads to the inference that all other restoratives are practically excluded, except those which may be resorted to at the same time.

The patient may be slapped upon the back, and cold water may be dashed upon the face, at the same time that the semi

or quarter rotations are being practiced, and they are therefore appropriate enough, as *auxiliaries*, to the "ready method."

What about applying a bottle of ammonia to the nose—of giving the patient a drink of brandy when he is not breathing? How much vapor of ammonia will go into the nostrils in the absence of inspiration, and where will the brandy go more readily than into the larynx under these circumstances?

The *fatal* objection to these or any other remedies which take the place of artificial respiration, is, that these uselessly squander the only few moments, during which respiration can be restored.

Upon the theory that the heart first ceases its function, and the lungs afterwards theirs, the question is, whether the *first few moments* shall be spent in rolling the patient over, thus applying that heart-stimulant, which arises from the continuance of the flow of blood through the lungs, thus draining the heart of blood on one side, and replenishing it with blood upon the other; or whether they shall be spent in getting ready a galvanic apparatus with which to *shock* the patient,—any man sees the decision of the question in its very statement.

The *first few moments* must be employed in keeping up the respiration, and there is but one means of doing this on the instant. The seconds of time diminish in value in a rapid ratio, and the very first second may be employed in turning the patient over—thus securing a change in the amount of air in the lungs, by the necessary motion of the ribs and diaphragm during the change of position, and this change in amount of air is respiration.

Upon the theory that the danger arises from paralysis of the muscles of the epiglottis, or upon a loss of sensibility which fails to secure their action, through reflex nervous action, or from obstruction of the fissure of the glottis, by blood, or the viscid secretions, the process of turning over meets the indications coming from all these theories,—even that of the falling of the paralyzed epiglottis upon the glottis; for while the patient is upon his side the ribs will fall together, and the air

will rush out, and when he comes upon his face, the epiglottis will fall forward or downward, by its own weight, at the same time that the ribs will expand, and air will rush in.

Sticking a hook into the base of the tongue, and pulling it forward, meets the indication upon the theory of paralysed epiglottis, but unfortunately it must be useless, if respiration has ceased from any other cause.

The process of turning the patient over, meets all the causes existing singly or combined.

I pray the Lord that it may in every case be resorted to *at once*.

Yours for Science,

DAVID PRINCE.

Arseniate of Gold in the Treatment of Cancer.—M. Mas-sard, strongly recommends the Arseniate of Gold as an internal remedy for the cure of Cancer. We quote the following from the *American Medical Monthly*:

“Arseniate of Gold is prepared by shaking together a solution of pure Chlorate of Gold, and a solution of Arseniate of Potash, allowing the mixture to stand 24 hours, filtering and drying the precipitate. On account of its insolubility in water, arseniate of gold may be given in the solid form. The maximum dose is two centigrammes a day, in two divided doses. The dose ordinarily commenced with, is three or four milligrammes a day, increasing one milligramme every third day, until the maximum dose is reached, which is to be continued several months. Toxic effects have never yet been observed.”

Aromatic Sulphuric Acid in Treatment of Tapeworm.—Dr. B. Darrach, of Quincy, Ill., publishes in the *American Journal of Medical Sciences*, some cases showing the efficacy of Aromatic Sulphuric Acid as a remedy for Tapeworm. To be effectual, one drachm of the acid should be given well diluted in water, in the course of three or four hours. On the third or fourth day it may be repeated.

Chloroform in Congestive Chills.—The inhalation of chloroform in the cold stage of congestive chills, is confidently recommended by Dr. H. L. Byrd, of Savannah, Ga., in the Oglethorpe Medical and Surgical Journal.

Digitalis in Delirium Tremens.—Mr. Jones, of Jersey, England, strongly recommends large doses of Tinct. of Digitalis as a remedy for Delirium Tremens. He gave it in $\bar{3}$ ss doses.

AMERICAN MEDICAL ASSOCIATION.

The fourteenth annual meeting of the American Medical Association will be held, in Metropolitan Hall, city of Chicago; commencing on the *first* Tuesday in June next.

Each regularly organized Medical Society is entitled to send one delegate for every ten of its members; and each Medical College is entitled to two delegates. It is desired that the names of delegates should be forwarded to the undersigned, as soon after their appointment, as practicable.

Chicago, Feb. 1st, 1861.

H. A. JOHNSON,
Assist. Secretary.

Editors of Medical Journals please copy.

SUMMER COURSE OF MEDICAL INSTRUCTION.

A full course of medical instruction, including Clinics in the Hospital and at the Dispensary, together with Practical Anatomy in the dissecting room, will be given throughout the coming summer, in connection with the Medical Department of Lind University.

The plan will be so arranged as to enable the students to attend one Clinic, and one familiar lecture with examinations, daily, from the end of the present college term on the 1st Monday in March, until the commencement of the next regular term in October.

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**THE CHICAGO
MEDICAL EXAMINER.**

N. S. DAVIS, M. D., EDITOR.

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The EXAMINER will be issued during the first week of each month, commencing with January, 1860. Each number will contain 64 pages of reading matter, the greater part of which will be filled with such contents as will directly aid the practitioner in the daily practical duties of his profession.

To secure this object fully, we shall give, in each number, in addition to ordinary original articles, and selections on practical subjects, a faithful report of many of the more interesting cases presented at the Hospitals and College Cliniques. While aiming, however, to make the EXAMINER eminently practical, we shall not neglect either the scientific, social, or educational interests of the profession. It will not be the special organ of any one institution, society or clique. But its columns will be open for well written articles from any respectable member of the profession, on all topics legitimately within the domain of medical literature, science, and education.

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No. 3

ORIGINAL CONTRIBUTIONS.

Nature and Art. Their relative influence in the management of Diseases. Are they antagonistic or co-operative? An Essay read to the Chicago Medical Society, Oct. 19th, 1860.
By N. S. DAVIS, M. D.

During the last ten or fifteen years much has been said and written concerning the curative powers of Nature; as though she was an actual *entity*—a fair Goddess of health, ruling over the animal economy with the ubiquitous power to meet disease at every point.

And while nature has been thus personified, and exalted as an active curative power, *Art* has been caricatured as little else than an indiscriminate exhibition of harsh and deleterious drugs. Drs. Forbes and Bigelow, took the lead in this modern effort to deify nature, and it has been followed up, both in and out of the profession, until we can hardly take up a popular address, an introductory lecture, or an essay in the pages of a Medical Journal, without finding the curative powers of *nature* extolled, and the assumed *over-drugging* of the human race under the direction of art, soundly berated.

One of the latest and most noted productions of this kind, is the annual address, delivered before the Massachusetts Medical Society, by Dr. Oliver Wendell Holmes, of Boston; entitled, "Currents and Counter Currents in Medical Science." In perusing this kind of literature, two questions always arise in the mind, namely: 1st, what is meant by *Nature* as used in medical language; and 2d, what are the true relations between nature and art? Most of that class of writers who extoll nature and depreciate art, use the two words as though they

were necessarily antagonistic, but make no attempt to define either of them. Dr. Holmes, however, has so far deviated from the beaten path, as to define both terms as follows: "*Nature*, in medical language, as opposed to *Art*, means trust in the reactions of the living system against ordinary normal impressions."

"*Art*, in the same language, as opposed to *Nature*, means an intentional resort to extraordinary abnormal impressions for the relief of disease."

"*Disease*, dis-ease—disturbed quiet, uncomfortableness, means imperfect or abnormal reaction of the living system and its more or less permanent results."

"*Food*, in its largest sense, is whatever helps to build up the normal structures, or to maintain their natural actions."

"*Medicine*, in distinction from food, is every unnatural or noxious agent applied for the relief of disease."

These definitions emanating from a high literary source, and directly from what is claimed as the head quarters of conservatism in medicine, may reasonably claim a little examination. It will be seen by the first paragraph quoted that *Nature*, in medical language "means *trust*," that is, reliance, faith; therefore, according to Dr. Holmes, *nature* is merely a *mental* act, capable of being exercised either by the patient or the physician, or by both. "*Trust* in the reactions of the living system against ordinary normal impressions," constitutes *nature*. Surely, the definition is sufficiently simple, but can anything be more manifestly absurd? It is probable, however, that Dr. Holmes meant to convey the idea, that *nature* is the reaction of the living system against ordinary normal impressions, instead of *faith* or *trust* in such reaction. But while his language makes *nature* consist in a mere mental act of faith, *Art* consists in the production of "extraordinary abnormal impressions;" and disease simply "means imperfect or abnormal reaction of the living system," &c. Surely, the author of definitions so lucid, and so comprehensive, should have a monument erected to his memory!

Nature is the normal *reaction* of the living system.

Disease is imperfect or abnormal *reaction* of the living system.

Art is the production of abnormal *impressions* on the living system. But what is meant by the words, "*reaction*" and the "*living system*"? According to lexicographers, *re-action*, means action restored, renewed, re-established; and necessarily pre-supposes a previous diminution or suspension of action.

But can "ordinary normal impressions" produce anything more than simply, *action*? If not, how can *nature* be synonymous with *re-actions*? It was no part of our intention, however, to waste time in criticising the absurd definitions of Dr. Holmes. On the contrary we quoted them for the purpose of exhibiting more clearly, certain fundamental errors that are common to the whole class of writers, represented by Holmes, Bigelow, Forbes, &c. The first and most important of these errors, is the assumption that *nature* and *art*, as used in reference to the treatment of disease, are antagonistic or opposed to each other.

The second, is the assumption, that all medicines are "unnatural or noxious agents," producing "extraordinary abnormal impressions" on the living system.

The third, is the assumption that whatever is injurious or debilitating to the human system in health, is equally so to the same system affected by disease.

These three assumptions, constitute the foundation on which is based all the reasonings and deductions of "Young Physic"—"Nature and Art in the cure of Disease"—and a host of minor productions in the form of Addresses, Essays, &c. To expose the fallacy of these assumptions and point out, what we deem to be, the true relations of *nature* and *art* in the cure of disease, are the special objects of this paper.

Nature is a word which occurs so frequently in the medical writings of all ages, that its import, or the ideas sought to be conveyed by it, ought to be clearly understood. It is generally used in such a manner as to indicate, not only, an active, but a more or less intelligent power.

Hence, the common expressions, "Powers of Nature"—"efforts of nature"—"curative powers of nature"—"*vis medicatrix naturæ*"—&c., &c. If we take the plain import of the language used, we should necessarily receive the idea that the living physical organization of man, is possessed of a definite property or power, not only capable of resisting morbid impressions, but capable also, of making active and well directed *efforts* to remove morbid action when already established.

The *Archæus* of Van Helmont, did not more clearly represent the idea of a distinct presiding power in the animal economy, than does the word *nature*, as used in the medical literature of the present day. But is there any such definite property or power? We doubt whether any enlightened physician of the present day, would answer in the affirmative. What, then, is the proper meaning of the word *Nature* as used in medicine.

A rational answer to this question, must necessarily precede any attempt to point out the true relation between nature and art. If the word has any definite meaning in medical discussions, it must refer to the elementary or vital properties of the organized structures, and the primary functions resulting from the action of natural stimuli on those properties. Viewing man as a living physical being, without reference to mind, we should say that every cell and fibre of his organized structures, are endowed with two elementary properties. The first we call *susceptibility*, or that property which renders the primary organized structures capable of being acted upon in a given direction. The second, we call *vital affinity*, or that property by which the particles of organized matter are made to arrange themselves in peculiar and definite forms, constituting the various primary structures of the body. By one class of writers the first of these properties has been confounded with nerve sensibility; and by another, both have been confounded under the vague expressions—life force—vital force—vitality—*principia vitæ*, &c. But a careful logical analysis of the phenomena of organization and life, will show that these two distinct properties not only exist, but that they are also primary

and inherent in all living matter, without any reference to nerve structure or function. In the absence of active stimuli, they are capable of remaining dormant for an indefinite time, as seen in the seeds and germs of plants and the ovum of animals. But no sooner is the appropriate stimulus of caloric, moisture, and nutritive material presented, than a *susceptibility* is manifested by active changes; and a *vital affinity*, by the peculiar and definite arrangement of particles resulting from such changes.

Each of the primary structures of the human body, such as the nervous, muscular, fibrous, vascular, and secretory being endowed with these properties, are capable of manifesting certain phenomena or results which we call elementary functions.

Thus the nerve structure is capable of receiving and transmitting impressions; the muscular of contractions; the fibrous of elasticity; the vascular of circulating fluids; and the secretory of selecting materials and forming new compounds, called secretions. Thus by an analytical study of organized living matter, we find two elementary properties common to all such matter; and as a result of these we find each definite structure endowed with a capacity for certain actions called elementary functions. They may be tabulated thus:

Elementary Properties.		{ Susceptibility, } Common to all liv- { Vital Affinity, } ing matter.	
Elementary functions.	{ Sensibility and } { Transmissibility, }		Belonging to nerve structures.
	Contractility—		belonging to muscular structures.
	Elasticity—	do	fibrous structures.
	Circulation—	do	vascular structures.
	Secretion—	do	secretory structures.

From these elementary properties and functions, aided by the natural stimuli and appropriate material to act upon, result all the complex phenomena of physical life and organization.

Now, the sum total of these properties, structures and functions, as they are presented in the living animal body constitutes *nature*. And when we speak of the *powers* or *efforts* of nature, we can mean nothing more or less than the actions resulting from the performance of one or more of these functions.

Some of these actions have for their object the reception, assimilation, distribution, and appropriation of material for growth and reparation. Others, for the disintegration and removal of waste or hurtful material from the system. The former are styled nutritive actions, and the latter excretory or depurative. It is chiefly through the latter class of actions or functions that those changes are effected, which in common parlance are styled efforts of *nature* to prevent or cure disease. Thus if food is taken in too large quantity or of bad quality, it often irritates the mucous membrane to such an extent as to produce either vomiting or purging, by which the offending material is expelled, and *nature* is said to have relieved herself. Again, if matter foreign and hurtful in its nature, passes the digestive organs and enters the blood, it is often speedily separated and passed off by the skin, kidneys, and lungs, thus preventing the establishment of morbid action or rendering it evanescent. This is another mode of displaying what is called the curative efforts of *nature*.

But some of the excretory organs are so constituted that the increased action of one may temporarily compensate for the diminished action of another. Thus, a diminished action of the skin from undue exposure to cold, is often accompanied by sufficient increased action of the kidneys to prevent hurtful accumulations of effete matter in the blood. These are also denominated *efforts of nature*. There are also various other processes by which morbid actions are suppressed or diseases limited in their duration, that are ranked as efforts of *nature*, but the rationale of which is less generally understood.

Thus when an irritant acts upon the nervous system so energetically as to produce convulsions, the latter arrests the respiratory process and so rapidly accumulates carbonic acid in the blood, that its narcotic and sedative qualities soon overcome the excitement of the nervous and muscular structures, and the convulsive movement ceases. Again, some cause is brought to bear in such a way as to disturb or excite the elementary properties of the tissues, and thereby develop the phenomena of fever. The fever thus established is accompanied by a general diminution of the excretory actions. Hence,

effete matter gradually accumulates in the blood until, by its depressing effects, it overcomes the morbid susceptibility, thereby reducing the febrile excitement to a point consistent with the return of secretion and healthy action. This may take from one to three weeks; but when accomplished, the fever is said to have been *self-limited*, or cured by the *efforts of nature*. We thus see clearly that *nature* in medical language, when not used merely as a cloak for ignorance, means simply the ordinary processes that take place in the living animal body; and the *cureative efforts* or *powers of nature*, the *vis medicatrix naturæ*, are the performance of one or more of these processes in such a manner as, either to remove the causes, or overcome the effects of disease. Having thus defined nature and her efforts, we will next inquire into the nature of *art* and her real relations to nature.

Dr. Holmes has defined Art, to consist in the use of medicine for the production of extraordinary abnormal impressions to relieve disease. And medicines, he defines to be *unnatural* *noxious* agents. These definitions, however, are only equalled in absurdity by his declaration that nature means a mental act of faith or *trust*. We should say that *disease* consisted in extraordinary and abnormal impressions and actions; and that *art*, as used in medical language, meant the use of such agents as would diminish or *remove*, such "extraordinary and abnormal impressions" and their results. In the illustrations already given we have seen that nature has three methods of resisting disease; First, by expelling the cause, as when offending matter is ejected by gastric or intestinal discharges or by increased secretions from the skin, kidneys, &c. Second, by increasing the action of one secretory organ sufficient to compensate for the diminished action of another. Third, by allowing the accumulation of such material in the blood, as by its narcotic or sedative qualities is capable of overcoming morbid excitement and favoring critical evacuations.

So the enlightened physician, the practitioner of true medical art, instead of using noxious agents to produce abnormal impressions, acts in strict imitation of nature's own processes, by endeavoring first of all to remove the noxious causes—sec-

ond, to use one organ when necessary for the temporary relief of another which may be disabled by disease—and third, to bring into requisition such agents as will allay irritation or excitement when in excess, or prop up and sustain the properties and functions when too much depressed.

We thus see that the operations of nature herself; or in other words, the processes that take place in the human system when embarrassed by morbid impressions or disease, plainly indicate the use of agents to remove offending matter, either by evacuants, such as cathartics, diuretics, diaphoretics &c., or by antidotes to destroy its noxious qualities. And when the morbid actions do not cease with a removal of the causes from which they originated, nature points with equal clearness to the employment of sedatives, anodynes, or tonics, according to the nature of the morbid action.

The very existence of disease, is a confession on the part of nature, that she has been unable to resist the action of those noxious influences to which she has been exposed. And the true object of art, is to interpose timely and well directed assistance in her behalf, either by removing the evil influences, or lessening their effects on the organized structures, or by both. Hence the skill of the physician in the practice of his art, will be in direct proportion to the clearness with which he sees the exact nature and tendency of the morbid actions constituting disease, and the precision with which he adapts the application of remedial agents to the accomplishment of the special change indicated by the nature of the morbid action. If there is any truth in the foregoing observations, they show clearly that the physician is, what his name imports, namely, a student of nature in its most comprehensive sense. For he studies nature, not only, in her healthy manifestations, but also in her embarrassments, her deformities, and morbid conditions. And his *art*, instead of being antagonistic or opposed to nature, is in the truest sense of the word, her ally, her assistant, exerted only when she is embarrassed, and in a direction to relieve such embarrassment.

Hence, the assumption of Dr. Holmes, and the school he represents, that nature and art stand in opposition to each other,

is a fundamental error that vitiates all their reasoning. Equally faulty is the definition of medicines given by the same class of writers, and the distinction between food and medicine. The assertion that food embraces all substances capable of nourishing the tissues or supporting the functions of the organs; and that medicines are simply "unnatural or noxious agents," is neither explicit nor truthful. Will any respectable physiologist deny that caloric, electricity, oxygen, &c., are capable of supporting the various functions of the system, and yet will he pretend that these agents are food? Again, it is perfectly well known, that under certain circumstances, strychnine, the preparations of iron, of peruvian bark, &c., are capable of aiding very much in supporting the various functions of the system; but will any one pretend that these agents are food! Neither is it true that all medicines are "unnatural or noxious agents." Are not the gentian, the poppy, and the rhubarb, just as *natural* as the potatoe, the corn, or the wheat? And, when properly used, are they any more noxious? If improperly used, they may produce injurious or noxious effects, and so may a loaf of bread. The truth is that the human system is capable of being acted upon by three distinct classes of agents. The first embraces all such substances, whether solids, liquids, or gases, as are capable of being assimilated and converted into any part of the natural structures of the body. These constitute *food*.

The second, embraces those agents, which though not constituting a part of the living structures, are yet essential to the healthy performance of the various functional and organic actions, such as atmospheric oxygen, caloric, light, and electricity. These are the natural *stimuli* or *excitors* of action, and are essentially distinct from food.

The third class, embraces all such agents as are capable of modifying the properties and actions of the system, without being themselves assimilated. These are *medicines*.

Another fundamental error, that vitiates the reasoning of all that class of writers who delight to deify nature, and caricature art, consists in the assumption that all medicines or substances capable of affecting a well man injuriously, must also affect a

sick man in the same direction. Thus, if a bleeding, a purge, or a blister, debilitates a person in health, the same effect must necessarily follow their administration to one affected with disease. To the observing and experienced practitioner, the fallacy of such a statement, is abundantly obvious; and yet it is well calculated to deceive the inexperienced and the non-professional. Those who assert such a doctrine, forget that the intense engorgement of the capillaries of an important organ like the lungs or brain, may so interfere with the performance of its function as to threaten a speedy and fatal exhaustion, while a timely bleeding sufficient to make a well man faint, would, by relieving the oppressed organ and restoring its function, positively add to the strength of the sick one. They seem to forget that all disease or morbid action, is accompanied by abnormal susceptibilities and diminished strength; and consequently that agents which might act positively injurious on organs with their normal susceptibility and action, might be exactly adapted to remove abnormal susceptibility and action, and thereby restore strength and health. Without pursuing these strictures further, we will briefly state a few rules which we think should govern the physician in the investigation and treatment of disease.

First, he should regard the living body, as a complex organization, composed of various delicately organized structures and organs, each designed to perform its own proper function, and all endowed with elementary properties that distinguish them from inorganic or dead matter.

Second, he should remember that the body so organized and endowed, is constantly surrounded by agents, ponderable and imponderable, so numerous and so changeable, that they are capable of influencing the properties and functions of its several structures, in every possible direction. Thus, some are capable of exalting the properties and inducing excited action; others of depressing the properties and inducing diminished action; while others still pervert the properties and functions, instead of simply exalting or depressing them.

Third, the physician should aim to make himself so familiar with the physiology and pathology of every structure and

organ, that he is capable of analyzing the complex phenomena of disease, and of tracing accurately its location, its grade of action, its stage of progress, its tendencies, and its influence on other organs more or less remote from its own location.

Having done this, he should have such a knowledge of the *Materia Medica*, as will enable him to apply such remedies as are exactly adapted to the existing grade of morbid action. In doing this he will find use for depletives, sedatives, and anodynes to soothe pain and diminish excited action ; for tonics and restoratives to prop up and sustain functions already impaired ; and for alteratives and antidotes to correct perverted action, and neutralize noxious ingredients.

Following these rules and objects, the enlightened physician will neither become a skeptical advocate of expectancy ; nor an indiscriminate administrator of heroic remedies ; nor yet a dreamy advocate of some vague theory by which he attempts to reduce all disease to a unit, and all remedies to one principle of action, whether such theory be the *asthenia* of Brown and Todd, or the *similia similibus curantur* of Hahnemann. But he will become a true observer of nature, in health and disease ; and will be ever ready to aid her when embarrassed by disease or morbid action, strictly in accordance with the dictates of an enlightened *common sense*.

Valedictory Address to the Graduates of Medical Department of Lind University, for the Session of 1860-61. By M. K. TAYLOR, M. D., Professor of Pathology and Public Hygiene.

GENTLEMEN.—We have assembled, probably, for the last time, in the relation of teachers and pupils. The prescribed course of instruction has terminated. Your proficiency has been endorsed, and with the seal of this University you will soon be wending your way to your respective homes, to receive the congratulations of friends, and to enter, we trust, upon a more extended sphere of usefulness.

The anxieties, aspirations, desires and possibly rivalries of studentship are passed, and the hopes and fears of a final

examination are quieted in the reception of the testimonials this night conferred, and in this more public acknowledgement of your industry and worth. And while we thus recognise your acquirements in medical science, and assure the public so far as we may, by these outward acts, that you are justly entitled to its confidence and support, we take occasion to express our own gratification in knowing that you have made every reasonable effort to qualify yourselves thoroughly for the responsibilities you propose to assume. Indeed, I may go farther than this, and declare our belief that few students in this country will enter the ranks of the medical profession better prepared to discharge its obligations than yourselves. I say not this with the view of tickling your vanity or pride, nor as an unmeaning compliment to sweeten the hour of parting, but to express more fully our firm conviction that the advantages growing out of the plan of instruction herein adopted, together with your own ardent desires to improve them, have been conducive in a greater degree to this end. Feeling thus, therefore, it is with more than an ordinary amount of pleasure that I welcome you into the ranks of one of the most responsible, and when rightly viewed, one of the most ennobling professions of civilized life. I cheerfully extend to you the right hand of fellowship and meet each of you with a cordial greeting, and that fraternity of sentiment which you have a right to expect. Rest assured of the interest we shall feel in your future welfare, and of the pleasure it will afford us to hear of your success in life, and to know hereafter that nothing shall have transpired causing you to regret this choice of a vocation. We hope, too, that the same zealous spirit of inquiry and observation which we have witnessed during your pupilage will continue beyond the shadows of the institution you are now about to leave, and remain an abiding influence throughout your professional career, and at last meet with that reward in honor, position, and profit, to which true merit may justly lay claim. I would also with this assumption of a new position have you take enlarged views of what should be the great aims of life in the promotion of the welfare of your fellow creatures; and bear in mind that you have a two-fold character to

sustain before the world, in your personal and professional relations, the dignity of which can be best upheld and vindicated by exemplification in your own conduct. Your duties in this respect, therefore will be the subject of our special consideration.

In entering upon your professional duties, and having a proper regard for a faithful discharge of them, you must expect at the outset, that every virtue of the human heart, and the highest qualities of the understanding, will, more or less, be called into requisition.

For the exercise of a sound discretion, a good judgement, a desire to please without a forfeiture of self respect, a high sense of honor, an unbending integrity, kindness, sympathy, gentleness, without loss of efficiency, a liberal allowance for the peculiarities of some, and the weakness of the infirm, you will continually find drafts made upon you, and it is to be hoped that none of these demands will ever become subjects of protest.

But beyond these appeals to, and demands upon the sterling virtues you may possess, there is the sense of responsibility standing as an ever present monitor in the minds of those who feel they have an account to render to their own consciences as well as to their Maker, for the short comings of this world. Life, health, and all its blessings, the richest pleasure of earth, the support of declining years, and all the hopes that brighten the pathway of age to the tomb, are often intrusted to the physician's care. The great and powerful, rich and poor, president and people, alike bow to our professional shrine, and seek at the hands of its votaries relief for their multiform mental and physical infirmities. This sense of responsibility is to be cherished, and the moral obligations for the proper performance of your duties, should ever be subjects of your serious consideration. But not only this, for thinking without action has but little merit in it, we enjoin upon you to be diligent in the acquisition of more knowledge as well by your own patient investigation and studies, as in keeping pace with the

labors and advancement of others. To be a student, therefore, is a necessity through life, otherwise these responsibilities cannot be honestly discharged.

You must by this time be well aware that the field before you for the exercise of your mental faculties is an unlimited one. Indeed it may be said to reach beyond any single human capacity, for medical science is the sum of all others, and has for its basis all that we know of the mental, moral and physical relations of mankind to the world.

Its vast extent, to some, may be a source of discouragement. Yet boundless as it may appear, and unpromising as it may seem to one desirous of grasping a given amount of knowledge only, and appropriating it solely to selfish purposes, medical science has allurements to the true student, which are unequalled by any other, and which lead him to the loftiest conceptions of the subtleties of life, and all its attendant intricacies and surroundings.

It will give the close investigator, a catholicity of spirit, and teach him to hold up before the world his profession unspotted by selfishness—uncontaminated by dishonor or meanness, to cherish a fraternal regard for his professional bretheren, and at all times to feel an abiding faith in its ultimate triumph over any and all opposing, so called, systems of medicine, come they from whatever source they will.

These are but a few of the encouragements that I would offer as a stimulation to unceasing devotion to your profession, both in respect to its literature and science, as well as their practical application in the removal or alleviation of disease. They pertain mainly to yourselves individually, and bear more forcibly upon the inner consciousness of one seeking at all times to be true to himself first, and then to those who in their hour of suffering may require his aid.

But while, for your own sake I would urge the importance of an assiduous devotion to the more intellectual departments of your profession, I am by no means unmindful of the obstacles which will arise from business relations, the discouragements growing out of a want of appreciation of one's labors by the public—for a time, perhaps possibly forever;

and the tempting allurements offered by the credulity of men, the preying upon which may lead to affluence and high social position. 'Tis true, these blighting influences have done much to weigh down and reduce to sluggards and routinists, many of those, whose aspirations in early life led them in the direction of better things, and even have driven many from the paths of professional rectitude. Still I trust that none of these will, even for a moment, deter you from obeying the behests of your medical obligations, and of meeting them with the stronger weapons of indomitable perseverance. Closely associated with these obstacles to your progress, however, and that which operates with the greatest force upon all members, old and young, of our profession, is the ignorance of a large majority of the public, of what constitutes the basis of the principles and practice of medicine. With these, medicine is a matter of belief only, and not of any positive knowledge. Hence the most absurd crudities and superstitions find as ready a lodgment in their minds as the more potent facts of medical science. Indeed it would almost seem that the rapid advancements in all departments of physical knowledge, and the ready promulgation of the same, through a teeming press, has served to unsettle the minds of many in the application of the plainest common sense rules, involved in the ordinary transactions of life, to the treatment of their ailments, and engendered a morbid desire for something new and startling, and totally distinct from anything heretofore considered a fixed principle.

Novelty in such cases, usurps the place of a conservative stability—the new the place of the old—and under the deceitful and high sounding name of progress, with the zeal of a Mohamedan, they unceasingly proclaim their crude notions of the most abstract sciences, and at the same time dispaly their unblushing ignorance of the basis upon which any single one is founded. Neither does it matter where these notions originate. They are alike, ready to accept as an established truth every “pathy and ism” emanating from Boston or Germany, as well as the less pretentious superstitions, and wierd fancies of a Pattowatamie Squaw; nor, is it alone among the less

cultivated and uninformed, that you will be likely to meet these. Men of intelligence in other matters, are not free from them, and you will often find the crude theories of an Egyptian age, clothed in the habiliments of a higher modern civilization. It will seem strange to you that these things exist, and you may be loth to accord that consideration to the opinions of men on medical subjects, which, upon every other, would give you the greatest pleasure. So, too, at times, you may feel nettled by a total disregard of what you conceive, and probably know to be for the best interests of those seeking your advice, and the straying away after their erratic fancies, those whom you have heretofore considered your most reliable friends. Nor need this be a matter of surprise. For, if you will call to mind the fact, that nearly all the physical sciences have been raised to their present gigantic proportions, since the commencement of the present century; that anything like a positive knowledge of the organic changes taking place in the human system, either in health or disease, dates back to scarcely half that time, that the common mind must necessarily, in most instances, be years behind the pioneers of scientific advancement, even so far as the general principles are involved, and that more especially the intrinsic difficulties attending investigations of a science so complicated as medicine, and which require years of patient industry to catch a gleam of its great truths; we may well excuse errors of opinion in the less informed, and treat their foibles so far as consistent with self respect, with a spirit of forbearance. Since, in the language of another, it is a well known fact, that whilst the public can judge with a tolerable degree of correctness, of merit in every other profession, it is wholly incapable of forming a proper estimate of ability in medicine. The structures of the human body, the functions they perform, the derangements to which they are liable, are to mankind in general, completely unknown. All that your patients will concern themselves with, are results, but so little are they familiar with the modes by which these are obtained, so little do they know of the operation of nature as distinguished from art, that they are especially liable to the most erroneous conclusions. Coupling

these to the greedy avidity with which most persons seize upon all knowledge of this kind, without the ability to discriminate between the good and bad, or the source whence it emanates, it is not at all surprising that they should be unstable in their opinions, and drift in the direction of every point of the compass save the right one. For this reason, too, unprincipled persons from time immemorial, have practiced on public credulity, and some specious but shallow theory, some vaunted nostrum, some peculiar accomplishment, or some singularity of manner have each in turn been made the means of imposition, have each found favor in the estimation of large and even respectable classes in many communities, and for the time overridden the greater truths and practice of a rational science. These things exist, and we may speak of them as they are, and meet them like men. They become sources of annoyance to those who have a just conception of the highest aims of our art, and seek to be governed by a conscientious regard for the performance of the functions of a true physician. In the weaker, too, as well as in the indolent, they give rise to repinings and puling reflections on the want of appreciation and confidence in their ability—overwhelm them with discouragements—and reduce the practice of medicine, by them, to the meanest drudgery of their lives.

But to him who stands shielded by the panoply of a high scientific attainment, who has courage and an unwavering perseverance, to surmount all obstacles in the way of his progress—industrious habit of thought—and complete devotion to the welfare of his profession, they only aside from the annoyance of contact, serve as incentives to the more vigorous prosecution of what should be the great aim of his life—commanding, thereby, the confidence and respect of those with whom he associates, and making them feel that the position of an enlightened medical man, is as much above that of vaunting pretenders, as the blue vault of heaven is above the unfathomable depths of the earth beneath. Your duties in respect to correcting these evils are manifold and cannot be specified here. Suffice it to say, however, that a habit of idleness does not belong to them. On the contrary, you have

to study, to think, to labor, as you have never done before. But while I urge the importance of an assiduous attention to the perfection of yourselves, as far as can be done in your medical studies, I would also call to mind your relations to the public, as conservators of its general welfare, and your obligations to correct these evils, so far as you may, by your personal influence and scientific acquirements. This should be done by lending a liberal support to every reasonable effort for the education of the masses. Let the crude theories of men be met by the abundant and overwhelming facts at your command. The weapons of a true science are all powerful upon the understanding, if you have the skill to handle them well. Ignorance and prejudice may for a time baffle you, but remove these by a liberal education, and the work is then easy with the aid of time. I do not mean, however, simply a general education, as is commonly understood in the popular use of the term, but in addition to that, the introduction into all our institutions of learning, of such a course of study in the elementary branches of medicine, as shall give a clear insight into some of its great fundamental principles. It has been said: "The proper study of mankind is man," and I suppose few will attempt to controvert the abstract proposition. Still, in the scheme for the instruction of the rising generation, but little advancement has been made towards the attainment of this end. All the efforts thus far are of the most superficial character. Speaking for myself, then, I may express the belief that the establishment of professorships of Anatomy and Physiology in every college and school, of such importance as to warrant it, when aided by a spirit of liberality on the part of the members of our profession, will do more than any other plan yet presented for our consideration.

I have not time to discuss the subject farther here, nor is it appropriate that I should, but this I may say, before dismissing it, that I trust you will ever be found prompt supporters of every effort in this direction, on account of the reactionary benefits accruing to yourselves, should no higher considerations move you to the performance of them.

So, in matters of public policy, of religion, of morality, law and order, and public sanitary relations, you may do much towards winning the confidence of your respective communities by a disinterested benevolence, and thereby control or guide them when under the specious influences of flippant so-called advocates of progression. Look not for immediate reward at the hands of others, for all you may do in matters of this kind, for it may never come. The greater consideration of having faithfully carried out the behests of an enlightened understanding of the duties of a modern physician should be sufficient. No groveling idea that all you do is to redound to selfish purposes should be entertained, for these are the lowest motives that can actuate men, and when carried out, have a tendency to narrow the mind, to make bigots, and render one odious in the extreme to nearly all classes of community. You live in an age when medical science, as well as all others, is making rapid strides in the direction of a true progress towards the greatest ulterior results. The whole medical world is busy with its investigations of the laws of life, in health and disease, and the brightest intellects of your cotemporaries are pursuing with undiminished zeal, the pathway leading to a more complete understanding of the great problems involved in the birth, growth and death of their fellow creatures. So, too, you stand before the gaze of an intelligent public, whose Argus eyes will be quite as likely to discover your foibles and weaknesses as you can well imagine, and by their multiple vision, magnify each indiscretion to the extent that you will scarcely be able to recognize the original. In all things, then, let your light so shine before men, that the sharpest professional competition, and the severest public scrutiny may not find you wanting in those qualities of mind and heart, of zeal and steadfastness of purpose, of courage, and a determination to succeed in life, which every one must possess in this age of the world, would he aspire to pre-eminence among his associates, and hold securely the confidence and respect of high minded and intelligent men ; and at the same time, assure to himself a reasonable compensation for his personal sacrifices and privations.

What I have said thus far has been for the purpose of inspiring confidence in your own ability, and in the resources of your profession, to meet and overcome all obstacles standing in your pathway, leading to eminence and wealth, while you are elevating the standard of medicine, and benefitting those with whom you associate. Let it not, however, inculcate a spirit of professional pride and bigotry. These are the poorest foundations for preferment, that you could well have—indeed, in most instances, they become positively offensive. They are directly at variance with that respect for your vocation and its duties, and that admiration for those great principles involved in the practice of the science and art of medicine, which I would have the main-spring of your thoughts. Much more might be said upon this subject, but time forbids. It remains for me only to take a more formal leave and bid you farewell. Go hence, remembering that we feel a deep interest in your prosperity or adversity, if fortune shall have such in store, and that we have committed to your keeping, to some extent, the well being of your Alma Mater. May long life and its choicest blessings be yours, and the rich reward of an approving conscience attend the closing acts of your lives.

NOTES OF SURGICAL CASES.

BY E. ANDREWS, M. D..

Prof. of Surgery in the Medical Department of Lind University.

Terrible Neuralgia of the face, cured by excision of a portion of the infra-orbital nerve.

This case is the same one alluded to in the report of a clinical lecture, given in the Examiner of last month. The patient for several years had been the victim of terrible suffering from neuralgia in all those branches of the superior maxillary nerve which come through the infra-orbital canal. No other twigs being affected, I judged that the foramen was the seat of difficulty. Wishing to use mild measures first, I injected beneath the skin a half grain of morphia in solution, in the manner recommended in certain French publications.

This measure which I have often found surprisingly beneficial, had but a slight influence in this case, and as the patient's life was an intolerable burden in his present condition, I determined to relieve him by excising a portion of the nerve *behind the infra-orbital foramen*.

For this purpose the patient was anæsthetized, and I raised the cheek by dissecting up a semilunar flap as high as the edge of the orbit, exposing the nerve at its exit from the foramen. I then applied the trephine with its upper edge just below the foramen, and taking out a button of bone laid open the antrum. It was now easy to trace the infra-orbital canal backwards by a slight ridge observable on the roof of the antrum. Commencing at the foramen anteriorly with gouge forceps first, and more delicate instruments as I proceeded backward, I easily broke down the floor of the infra-orbital canal, and traced the nerve back into the cavity of the orbit. Then dislodging it from its groove, I took a pair of small blunt pointed scissors and cut it off as far within the orbit as I could safely reach, taking away about an inch and a quarter of its trunk. The flap was then laid down and secured by sutures, except a small space at the lower edge, which was left open for the escape of pus.

On awaking from the influence of ether, the patient found the character of his pain changed from the shooting neuralgic torture to the steady aching of a surgical injury. This gradually subsided, and by the fourth day he was free from suffering, and on the tenth day was discharged apparently cured.

The want of permanency in the cures obtained by excising portions of nerves, has been heretofore a discouraging feature in such operations. I think, however, that we are now in a condition to understand the matter more thoroughly than before, and to avoid the errors which cause the failure.

A large portion of the operations heretofore have been made in the *wrong places*, namely—on the *distal* instead of the *proximal* side of the seat of the disease. *The seat of disease in old facial neuralgias is generally at some bony notch or foramen through which the nerve passes*, and not at the surfaces of distribution to which the patient refers the sensation. Probably

the nerve is pressed upon by some slight constriction of the foramen or swelling of its contents. Now this fact has been greatly overlooked and even the eminent and judicious Prof. Gross, in his new work on surgery, absurdly suggests the cutting of the maxillary nerves *just outside* of their foramina of exit. Other distinguished writers make the same mistake, and many operations have been performed in consequence, at the wrong place. If the excision cannot be made on the proximal side of the seat of disease the operation of course is a failure. Prof. Carnochan, who reports a greater success than any other man, even goes through the back wall of the antrum in neuralgias of the superior maxillary, and takes out Meckel's ganglion. This, however, is probably unnecessary when the point of trouble is in the infra orbital canal, but would be requisite if the palatine nerve were affected.

Finally, there are cases where no useful operation is possible. Those in which the seat of disease is the foramen rotundum or the foramen ovale, of course are incurable by surgical means, because no section can be made within those openings. The diagnosis must be made out by carefully observing the area over which the pain is felt and studying the origin and course of the branches of the 5th nerve supplying the part. If the nerve is affected at a particular point only, all the branches beyond that point will suffer, and all others will be comparatively free from pain. By thus carefully investigating the cases, I am confident that many can be selected in whom operation will effect permanent cures.

DIPHTHERIA,

Its Nature and Treatment.

BY C. W. DAVIS, M. D., OF INDIANOLA, IOWA.

I have noticed several articles in the "Chicago Medical Examiner," other medical periodicals, and the usual Newspaper "Squibs," on the subject of *Diphtheria*. Having had a considerable amount of experience in the management of this

disease with almost uniform success, I thought it would not be amiss, to give you (and if you see proper) to the readers of the "Examiner"—a statement as to the nature and treatment of this affection, so far as my humble opinion and experience go. In the spring of 1859, I was called to visit, in consultation, a case, the messenger said dying of croup. The patient was a boy between five and six years of age, had been sick some ten days, and at the time I saw him was laboring under all the phenomena of the last stage of croup. Frequent stridulous breathing, great anxiety, and restlessness—pulse over 140 with much thirst. I remarked to the attending physician, that I thought the boy would die in a short time, as I considered him laboring under infiltration into the cellular membrane of the Glottis—and that emetics would do no good. Tracheotomy would be the only resource, and that very doubtful. I was induced, however, to examine the fauces and throat, and there found several patches of ulceration—with a heavy black albuminous exudation—lining the entire throat, so far as I could discover. I immediately made a saturated solution of the sulphate of Zinc—adding some 30 drops of Elixir Vitriol to the 3. Armed with a spoon (to compress the tongue,) and "swab" saturated with the solution, I prepared to swab out the throat. Introducing the spoon handle far enough back, the patient was forced to "gag." I immediately applied to the ulcerated portions of the throat, the swab, and was rewarded by bringing out with the instrument a large quantity of stiff, tenacious, and tough membrane, as well as a decided improvement in the patient's breathing. I will here say that I have used the solution of sulphate of Zinc in the various forms of Stomatitis, with marked benefit. Nitrate of Silver being less efficient, forming with albumen "the albuminate of Silver," and thereby becoming inert. I placed the patient on equal quantities of the Tinct's of Veratrum and Gelseminum, commencing with 4 drops, increasing 2 drops at a time, until the medicine produced its specific effect on the vascular and nervous system.

The bowels being in a constipated condition, and a want of tonicity of the mucous vessels, I gave alternately, powders

composed of Quinine, Hyd. cum Creta, with a small quantity of Podophyllin until the bowels were freely evacuated, and then substituted for the Podophyllin, camphorated Dover's powder, made by adding the same quantity of powdered camphor as of opium and ipecac, in the old formula for making Dovers' powder. I ordered the throat to be swabbed out every two or three hours, with the Zinc solution, using at the same time cayenne pepper liniment, composed of equal quantities of sweet oil, aqua ammonia, and turpentine with cayenne pepper in powder, to be applied freely to the external throat. On my next visit I found the patient decidedly better; pulse sixty-five per minute, respiration easy, ulcerations of throat more healthy, no albuminous exudation to be seen. By this course of treatment the patient recovered in a few days. There were several other members of the family laboring under Diphtheritic sore throat. The local applications of the Zinc solution and Liniment, soon cured them up. This form of stomatitis is attended with no particular febrile disturbance until the larynx and respiratory organs become affected. It is then, or rather it was then that the physician was first called. Should there be an impoverished condition of the fluids, general cachexy, the patient almost invariably dies of Oedema Glottidis—the tendency of Diphtheria if too long neglected. Since the Diphtheritic “rage” I have made a great many useless visits, being called to see children with “cracked lips,” “red gums,” &c; their anxious parents supposing it to be Diphtheria. But this is all well enough, I have known this disease to run to a fatal issue, without the patient being bedfast more than two hours. The saturated solution of the *Super-Sulphate* of Zinc and cayenne pepper liniment, as topical applications with quinine and veratrum as a tonico-sedative will prove successful in a majority of cases, say eight out of ten.

CLINIC OF PROF. DAVIS IN THE MERCY HOSPITAL.

Reported by F. S. C. Grayston, Member of Senior Class Med. Department of Lind University.

Diphtheria.—On entering the ward, Prof. Davis remarked, in substance, as follows:

The patient before you, gentlemen, is a little boy, aged about three years. He has been sick two days. You see his face slightly flushed; his lips look dry; his skin is dry and moderately hot; his pulse 110 per minute, but soft; you see a fullness or swelling behind the angle of the jaw on both sides, and a little down the neck, which, by the touch, you find occasioned by enlargement and induration of the tonsils, and some of the lymphatic glands; and on opening the mouth, you see the tongue covered with a white fur, the tonsils much swollen, and covered with particles of a white membranous exudation, and the mucous membrane of the whole interior fauces red and swollen.

The breath is moderately offensive; the nostrils partially obstructed by swelling of the schneiderian membrane; deglutition is somewhat difficult and painful; the urine scanty; and the fecal evacuations nearly normal. These symptoms indicate a case of *Diphtheria*, of about the average degree of severity. You readily recognize the close resemblance of this case to one your attention was called to, briefly, two or three days since, and which still occupies the adjoining bed. In that case, the fever was, at first, more active, the pulse more full, and the face more flushed. But there was the same swelling of the tonsils and glands behind the angle of the jaw, the same inflammation of the mucous membrane of the fauces, with a white membranous exudation over the greater part of the surface, which serve to distinguish *Diphtheria*, from ordinary inflammation of the tonsils and mucous membrane of the fauces.

Many have supposed that *Diphtheria* was a new form of disease, with which the profession was entirely unacquainted until within the last four or five years. This error, doubtless originated from the general adoption of a new name.

Until a very recent period, nearly all the inflammatory affections of the fauces, pharynx, larynx and trachea, were described under the general name *angina*. Hence, the terms catarrhal angina, suffocative angina, putrid angina, &c., are familiar to those who peruse the medical writings of half, or even of a quarter of a century since. Under some of these designations, Dr. Samuel Bard, and others, more than half a century since, described the present disease with almost as much minuteness and accuracy as any of the writers of the present day.

The word *Diphtheria*, was first used by certain French writers to designate all that class of anginose affections, that were accompanied by a fibrous or membranous exudation upon the surface of the mucous membrane. From this, the word *Diphtheria* has been applied particularly to the disease before us, and passed fully into popular use.

Causes.—In relation to the causes of *Diphtheria*, the lecturer stated that we knew but very little. It has prevailed at all seasons of the year; on almost every variety of soil and geological formation; in populous cities and rural districts; and in every degree of severity, from the mildest sporadic cases to the most malignant and fatal epidemic. To say that it originates from some epidemic condition of the atmosphere, is only another mode of confessing our ignorance; for we know nothing concerning the nature of such *epidemic* condition. Many regard the disease as contagious, and consequently produced by a specific poison. Without pretending either to affirm or deny the existence of contagiousness, we must say, that although the disease has been moderately prevalent in this city for eighteen months past, yet we have not seen any adequate evidence of its propagation by contagion. True, we have seen two, three, and four children attacked with it in quick succession in the same family; but in very many other families we have seen a single child attacked, in the midst of three or four others, all of whom escaped without a symptom of the disease. The very child before us, is from the adjoining orphan asylum where 40 or 50 children were fully exposed to

the disease more than two weeks since, and yet up to the present time only three have been attacked.

Symptoms.—The lecturer remarked that the symptoms already pointed out in the patient before us, very correctly represented the great majority of cases of Diphtheria in the early part of their progress. In some, however, the symptoms are more mild, there being very little febrile excitement, no swelling of the lymphatic glands, and only a superficial inflammation of the fauces with a few spots of diphtheritic exudation. On the other hand, some cases occur, in which the febrile symptoms are severe; the glands of the neck and throat swell rapidly; while the surface of the mucous membrane of the fauces, pharynx, &c., become so rapidly covered with a thick, tenacious, layer of false membrane, that suffocation may ensue in a few hours. In the great majority of cases, there is decided febrile action. The pulse, however, is rarely *firm* under the finger, it is for the most part, quick, sharp, and *compressible*; the skin is dry, the urine scanty, (sometimes none for 24 hours,) with little or no thirst; while a remarkable degree of prostration is noticed early in the progress of the disease. Still in this particular, (as in all others,) there is considerable difference, some cases present throughout their entire course all the symptoms of a *stenic* disease; whilst the great majority, (eight out of every ten) present the typhoid form of symptoms, the pulse being *soft* and *yielding*, countenance pale, respiration slow, and mental faculties dull. The local symptoms, though varying much in intensity, show certain tendencies with much uniformity. In almost all instances, after the first three or four days, the breath is offensive, the saliva abundant, and a thin sanious discharge takes place from the nostrils. A little later, the membranous exudation in the fauces will be found breaking up and disappearing in matter expectorated, the latter being muco-purulent with shreds of white fibrous matter. In cases progressing favorably, the redness and tumefaction of parts within the fauces diminish, deglutition is easier, the breathing less noisy, and the external glandular swellings slowly disappear. In less favorable cases, as the membranous exudation becomes detached, extensive superficial ulcerations

are found in the fauces, keeping up an abundant and offensive muco-purulent secretion ; while the same suppurative process extends to the schneiderian membrane, causing the nostrils to be obstructed with the same kind of secretion.

In cases still more severe, instead of superficial ulcerations, deep gangrenous sloughs form, in the tonsils and different parts of the soft palate ; the breath emits a putrid odor ; deglutition is nearly or quite suspended ; and the general symptoms become profoundly typhoid. When the local inflammation extends into the larynx, we have added, the characteristic cough and breathing of croup. This may take place at the commencement of the disease, or it may supervene at any subsequent period, even after the inflammation in the fauces has begun to improve.

Pathology.—In regard to the nature or special Pathology of Diphtheria, we would state briefly, that it is a general disease involving, both an altered condition of the properties of the solids and the composition of the fluids, of the body ; with a special tendency to develop certain local inflammations in the course of its progress. That the quality of the blood and the vital affinity of the organized textures throughout the body, are altered, is clearly proved by those cases in which false membrane or fibrinous exudations appear on abraded surfaces in different parts of the body. It is but a few weeks since, that we saw a young man with a diphtheritic membrane firmly adherent to the exterior middle part of the upper lip. Near the same time, a patient from whose axilla a tumor had been extirpated, and the wound had rapidly filled up with healthy granulations, was attacked with the ordinary symptoms of Diphtheria in a mild form, and within twenty-four hours, the whole surface of the wound was covered with a thick layer of false membrane. In two or three days this was broken up and detached, but the healthy granulations had also disappeared, and a thin sero-purulent, offensive discharge continued for several days. These facts with many others of similar nature, to be found on record, show plainly, that the disease is by no means local, but that it involves a Pathological condition of the solids and fluids generally. But what is

this pathological condition? From much observation at the bed-side as well as a careful study of what has been written on the subject, I am satisfied that the general pathological condition, consists in such an alteration of vital affinity, or the relation of the blood to the secreting structures, that the latter fail to eliminate the normal amount of effete nitrogenous matter derived from the metamorphosis of the tissues. Hence, fibrinous material rapidly accumulates in the blood and becomes effused in the form of a false membrane, upon every inflamed or abraded surface. This accumulation of effete matter further degenerates the blood, and aids to induce that early tendency to prostration, with irritation and foetid secretions which have been noticed by almost all writers on the subject. The foetid breath, the dry skin, the scanty urine, and the large proportion of cases in which the latter has been found albuminous, all corroborate this view. While such is the general pathological condition of the system, there is a special tendency to local inflammation of the fauces, pharynx, larynx, and lymphatic glands of the neck. As might be expected from the condition of the blood, already described, whenever inflammation occurs in a membrane, its surface first becomes coated with a white fibrinous exudation, followed by a disposition to ulceration or gangrene; and the inflamed glands become early infiltrated with the same caco-plastic or fibrinous material, causing swelling and induration, which disappear very slowly during the subsequent convalescence.

Prognosis.—The mortality from Diphtheria varies much in different seasons and different localities. In this respect, it bears a close analogy to Scarlatina.

Some cases are so mild as to require no other care than proper hygienic regulations, while others are so severe as to reach a fatal result in two or three days. As the disease has prevailed in this city during the last eighteen months, and directly within the circle of my own practice, the ratio of mortality has been *one* in twenty-five. We think there are three methods by which Diphtheria may reach a fatal result. The first, appears to consist in so profound an alteration of the blood and properties of the solids, that the capillary circulation

rapidly fails ; the mind drowsy and lethargic ; the urine very scanty ; and the inflamed parts of the throat gangrenous. In this class of cases, death often takes place during the first week after the attack.

In the second class of fatal cases, the fever is more active, the sensibilities more acute, while the inflammation in the fauces and glands, is more intense. But when the diphtheritic exudation begins to be thrown off, the parts are found extensively ulcerated. The same process extends to the nasal passages, and sometimes to the ears, causing copious mucopurulent and foetid discharges from all these parts. The glands remain swollen and indurated. The patient rapidly loses flesh and strength ; and during the latter part of the second week, diarrhœa supervenes and the patient dies asthenic. The third mode of reaching a fatal result, is by the extension of the local inflammation to the mucous membrane of the larynx, trachea, and sometimes, bronchial tubes.

In some of the cases belonging to this class, inflammation and the formation of the false membrane, occur in the larynx, at the very commencement of the disease, causing at the outset, characteristic cough and breathing of croup. In such suffocation sometimes ensues with twenty-four or forty eight hours. In other cases of this class, the laryngial or croupy symptoms do not occur until from five to ten days after the commencement of the disease. Then the cough suddenly becomes croupy, the voice suppressed, the respiration difficult, and suffocation ensues more from œdematous infiltration into the sub-mucous cellular tissue of the glottis than from the formation of false membrane. Two of the four fatal cases that have occurred in my own practice during the past year, died in this manner.

A third, was the case of an adult lady, in whom the pseudo-membranous inflammation early extended to the whole bronchial mucous membrane. A knowledge of these different modes of reaching a fatal result, and a correct appreciation of the tendency of each individual case, is of much practical importance ; as it will enable you to so guide your treatment so

as to more fully counteract the unfavorable tendencies, and thereby conduct the case to a favorable termination.

Treatment.—The lecturer remarked, that so large a part of the clinic hour had passed, that he would not even allude to the various methods of treatment, which had been recommended by writers and practitioners, but would detail, as briefly as possible, his own views on the subject. From the views already presented concerning the pathology of the disease, we may deduce three rational indications for treatment. First, to preserve the properties of the blood and tissues from degeneration or impairment. Second, to promote elimination, especially from the skin and kidneys. Third, to relieve the local inflammation in the throat and adjacent parts. For fulfilling the first indication, we are in the habit of relying on the use of the chlorates of Potassa and Soda, Sulphate of Quinine, and Tincture of Chloride of Iron. To meet the second indication, we use Nitrous Ether and Tinc. Verat. Viride, Dover's Powder and Calomel, or Dover's Powder and Camphor, according to the activity of the fever and the stage of the disease. In the case before us, we shall endeavor to meet both these indications by the two following prescriptions, viz :

℞ Chlorate of Potassa, 3 ℥j.
Hydrochloric Acid fl. 3 ss.
Water, 3 ℥ij.

Mix, and give a tea-spoonful in half a table-spoonful of sweetened water every four hours.

℞ Sulph. Quinine, 6 grs.
Pulv. Doveri, 6 grs.

Mix, divide into six powders, and give one every four hours, half way between the doses of the Chlorate Solution. To combat the local inflammation, in those cases presenting much tumefaction of the tonsils and other glands of the neck, we direct for the first twenty-four hours, the constant application of cloths wet in an infusion of Aconite Leaves and Muriate of Ammonia; after this we have the neck and parotid region wet every three hours with the following liniment, viz :

℞ Ol. Olive, 3 ℥j.
Ol. Terebinth, 3 ss.
Chloroform, 3 ss.

Mix.

This liniment we shall direct to be used for the little patient before us. We shall make no local application either by sponge or pencil to fauces. Our experience has satisfied us that in all the milder cases, especially in young children, the irritation produced by the application of strong solutions of Nitrate of Silver, Sulphate of Copper, Tincture of Iron, &c., &c., by forcing a sponge into the throat, does more harm than good. Swallowing the acidulated solution of Chlorate of Potassa every two or three hours produces a better effect on the throat than the stronger applications. In the second stage of the more severe cases, when the throat is much obstructed by false membrane or tenacious mucous, we prefer the application once a day of a solution of Iodine, Sulph. Zinc, or Sulph. Copper, made carefully with the finest quality of sponge or a camel hair pencil. It is only in the more decidedly active class of cases, and only during the first two days that we use arterial sedatives or alterative doses of mercurials. If the cases prove protracted, and typhoid symptoms predominate, we rely mostly on a combination of Quinine, Pulv. Doveri and G. Camphor, alternated with Tinc. Ferri Chloridi; and nourishment. We also continue to give the Solution of Chlorate of Potassa or Soda, partly for the local effect on the throat, and also to increase the capacity of the blood for the absorption of oxygen.

In those cases of Diphtheria in which the inflammation attacks the Larynx, indicating the ordinary symptoms of croup, we pursue the same course of treatment in all respects, with the addition of an emetic at suitable intervals. When the Laryngeal or croupy symptoms appear with the commencement of the attack, we lose no time in giving from 3 to 5 grains of the Sub-Sulphate of Mercury, and repeating in thirty minutes if the first does not produce free vomiting. We have met with three or four well marked cases, in which this checked the laryngeal symptoms at once, and they subsequently progressed to a favorable termination like ordinary cases of Diphtheria. In some other cases we have been obliged to repeat the emetic doses of the Sub Sulphate of Mercury, in from four to six hours during the whole of the first two days, and yet have reached a favorable result.

When the laryngeal symptoms supervene, after the Diphtheritic disease has existed from five to ten days, there is much more danger of suffocation from infiltration into the sub-mucous cellular tissue, constituting œdema of the glottis, than from false-membrane. In such cases, we have thought the Pulv. Alum, as recommended by Dr. Meigs in croup, the best emetic; while the oxygenation of the blood and the tone of the capillary vessels must be sustained by the constant use of the chlorates and Tinc. Ferri. Chloridi, with suitable nourishment. A few words in regard to the sequelæ of Diphtheria. Impoverishment of the blood; chronic suppurative inflammation in the lining membrane of the nostrils, external ears, and glands of the neck; are observed during convalescence from this disease, much as they are after scarlatina. And they may be treated in the same manner. But there is another affection of a singular nature which has been observed to accompany and follow attacks of Diphtheria. We allude to paralysis of the muscles concerned in deglutition. It is generally first noticed immediately after convalescence, though we have seen some cases in which it evidently existed during all the latter stage of the disease. It is indicated by a relaxed and pendulous condition of the uvula and soft palate; by the latter falling backward and causing snoring and obstructed breathing when the patient sleeps; by awkwardness of swallowing and frequent regurgitation of liquids through the nostrils; and by aphonia or a peculiar nasal tone to the voice. In two cases that have come under our observation, the paralysis was so complete that deglutition was entirely suspended, although the diphtheritic disease had disappeared and there were no traces of inflammation or ulceration left in the fauces or pharynx. These patients were sustained for several days solely by nutritious injections, consisting of milk and beef-tea. The remedy on which we principally rely for the removal of this paralysis, is Strychnine and Iron, as in the following formula, viz:

R	Strychnine,	1 gr.	
	Citrate of Iron,	3j.	
	Citric Acid,	3j.	
	Water.	3jj.	Mix.

The dose must be suited to the age of the patient, and may vary from ten drops to a tea-spoonful, given in sweetened water. When the patient cannot swallow, we give the same medicine, in twice the above doses, per rectum along with the nutritive enemas. The dose should be repeated in from four to six hours, and the remedy continued until the paralysis is removed. In all such cases, a nutritious diet, and exposure to fresh pure air should be given to the patient to as great an extent as practicable.

CHICAGO ACADEMY OF MEDICAL SCIENCE.

The regular monthly meeting of the Academy was held at its rooms this evening. The President Dr. Bloodgood in the chair. After the reading of the minutes of the last meeting, the President appointed the following committees in accordance with Art. VI. Sec. I. (revised,) of the constitution :

Anatomy and Physiology, Dr E. Powell,

Surgery, Prof. J. W. Freer, M. D.

Theory and Practice, Dr. A. Fisher,

Obstetrics, and Diseases of Women, Dr. O. Smith,

Chemistry and Materia Medica, Dr J. H. Rauch,

Public Health, Prof. N. S. Davis, M. D.

Pathology and Histology, Prof. J. H. Hollister, M. D.

Dr. R. C. Hamil read an interesting report of a case of *inversio uteri*. The labor was conducted with comparatively little difficulty, although there was a slight antero-posterior contraction of the pelvis. For a couple of hours before the birth of the child, five or six drops of chloroform were administered from time to time on account of nervous excitement. Ten or fifteen minutes after the expulsion of the child, a violent pain seized the patient, which was immediately followed by the delivery of the placenta. An alarming loss of blood with great prostration ensued. On examination, the uterus was

found inverted. Fortunately, after some efforts the organ was replaced; although there were subsequent symptoms of metritis, they were relieved by quinine, *Veratrum Viride* and *Hyoseyamus*, and the patient soon recovered perfect health. It should be observed that no force was applied to the cord in the delivery of the placenta.

Dr. H. N. Hurlbut reported orally a case in which he was recently called to a patient, married, aged about 40 years, suffering from violent hemorrhage and prostration. On examination he found the uterus inverted and presenting evident post-partum appearances. He reduced the organ readily, and the patient recovered without unfavorable symptoms. No child or placenta was any where observed, and no satisfactory account of the case could be obtained from the family.

Dr. Bevan related the following case to show the length of time which the lifeless foetus may remain in the uterus. The patient aged 35, in the fifth or sixth month of pregnancy, stated that the motions of the child had suddenly ceased in consequence of injury received in a quarrel followed by violent exercise. No foetal pulsations could be heard, and no motions could be induced either by pressure or by the application of cold to the abdomen. In three weeks the woman was delivered of a foetus in a state of decomposition. No blood passed from the uterus and vagina except in the form of dark decomposed clots.

The subject of Pneumonia, assigned at the last meeting, was discussed at some length by Drs. O. Smith, Johnson, Heydock, Fisher, Davis, Wickersham, Bevan, Hamil, Andrews, McAllister and Bloodgood.

Subject for discussion at the next meeting: The diagnosis of cerebral diseases of children. Adjourned.

E. L. HOLMES, *Secretary*.

Chicago, February 1st, 1861.

**ABSTRACT OF THE PROCEEDINGS OF THE WILL CO.
MEDICAL SOCIETY.**

The Society met agreeably to order at two o'clock P. M. of Wednesday, Feb. 13th, 1861, in the office of Dr. F. K. Bailey, Joliet. Dr. Bailey President in the chair.

The following gentlemen were elected officers for the ensuing year.

President, Dr. A. W. Heise, Vice President, Dr. E. K. Willard, Secretary, Dr. G. S. Thomas.

Drs. F. K. Bailey, P. B. McKay, and M. J. Johnson, were elected censors. The following are at present members of the Society :

Dr. W. Danforth, Joliet,
Dr. J. R. Casey, Joliet,
Dr. F. K. Bailey, Joliet,
Dr. A. W. Heise, Joliet,
Dr. G. S. Thomas, Joliet,
Dr. E. K. Willard, Wilmington,
Dr. P. B. McKay, Wilmington,
Dr. S. M. Abbott, Wilmington,
Dr. A. W. Bowen, Wilmington,
Dr. O. Corbin, Wilmington,
Prof. A. S. McArthur, (Lind University,) Joliet,
Dr. J. F. Daggett, Lockport,
Dr. H. Folke, Milton,
Dr. M. J. Johnson, Wilmington,
Dr. E. H. Story, Wilmington.

Dr. A. W. Heise read an interesting paper upon *Placenta Prævia*, which was listened to with much pleasure by all present. Dr. P. B. McKay was appointed to read an Essay before the Society, at the next meeting. On motion, adjourned to meet at one o'clock, Wednesday, P. M., March 13th, at the office of Dr. E. K. Willard, in Wilmington.

G. S. THOMAS, *Secy.*

A. W. HEISE, *Pres.*

CHICAGO MEDICAL SOCIETY.

The regular monthly meeting of this Society, was held in their room on the 16th, March, 1861. Dr. O. Smith, President in the chair. Is the internal use of Mercurials always injurious in Scrofula? Dr. E. Andrews opened the discussion on this question, by making a distinction between the scrofulous constitution or diathesis, and the local developments connected with it. Remedies that might be beneficial or even necessary for some of the latter, might not be indicated by the former. He presumed, however, that the question referred more particularly to the use of mercury in the scrofulous constitution. He defined such constitution to consist in a peculiar delicacy of structures, with deficient tone or strength, and a special tendency to the formation of caso-plastic deposits. The preparations of Mercury are supposed to diminish the plasticity of the blood, and thereby enteeble nutrition. Hence, they are generally regarded as injurious to those possessing a scrofulous diathesis. This, however, in his opinion did not in all cases forbid the use of mercurials in the treatment of local inflammations, occurring in such subjects. They might be necessary, and promptly beneficial, in the treatment of inflammation of the internal structures of the eye, even in scrofulous constitutions; but in such cases he would deem it necessary to be more cautious, about the long continued or excessive use of this class of remedies.

Dr. E. L. Holmes, regarded the use of Mercurials, in a cautious and proper manner, not only as admissable, but as beneficial, in many cases of scrofulous Ophthalmia of children. He had often used, in such cases, the Hydrarg. Cum Creta, and small doses of the Bichloride Hydrarg. in connection with tonics, and without any immediate or remote effects of an injurious character.

Dr. S. Wickersham, inquired whether the use of mercurials in the treatment of scrofulous inflammations in children, did not increase the danger of the formation of tubercular deposits at a subsequent period. He thought he had seen cases, in which scrofulous enlargements of the external lymphatic

glands had disappeared under the use of mercurials, and the same patients were not long afterwards manifesting signs of pulmonary tuberculosis. He entertained doubts whether mercurials could be used in any case of scrofula, without injurious effects, either present or future.

The discussion was further continued, by Drs. C. G. Smith, N. S. Davis, and O. Smith.

Dr. A. Fisher, read an interesting paper on strangulated hernia. Two cases were detailed, one of which was of peculiar interest; but as the paper will be published entire in our next number, we will not attempt an analysis of it here.

SELECTIONS.

Clinical Remarks on Sciatic Neuralgia, with a Case. Delivered at the Pennsylvania Hospital, Jan. 16th, 1861. By JOSEPH PANCOAST, M. D., attending Surgeon; Professor of Anatomy in Jefferson Medical College.

The case before us is one of sciatic neuralgia in an adult male, which the patient attributes to his lifting a heavy stove. If this be the case, it must have been from the immense pressure of the abdominal muscles and the diaphragm, acting together, in the violent effort of lifting, and squeezing all the viscera between them, and thus pressing upon the sciatic plexus of nerves where it passes out at the upper sciatic notch.

Cases of sciatic neuralgia are always difficult to cure. Their causes are various; sometimes it depends upon a growth of bone, a little exostosis pressing upon some one of the branches of the great sciatic plexus of nerves, while at other times, as in neuralgia of other parts, it depends upon an inflammation of the neurilemma of the nerve itself.

Dr. Physic believed that, in these cases, an effusion of serum occurred in the sheath; but this has not yet been revealed by anatomical observation.

Very many cases of sciatica may be traced to mechanical causes of pressure. Whenever patients complain of excruciating pains down the leg, and at the same time in the back, so that the course of the sciatic nerve can be traced out, the difficulty will very frequently be found to depend upon the

accumulation of fæces in the colon or in the rectum, pressing upon the branches of the sciatic nerve, and of course, in these cases, a cure may often be effected in twenty-four hours by a thorough purge of one or two drops of Croton oil, with four grains of rhubarb.

Sometimes, however, in obstinate cases of sciatica, even after death, it is impossible to find any real physical cause for the suffering. It seems, then, to be often owing to a derangement of the whole nervous system.

As the pathology is obscure in these cases, the treatment is more or less empirical. The patient before us has been suffering for thirteen months, six of which have been passed in the hospital; various plans of relief have been instituted without the slightest advantage. He walks with pain and difficulty, using a cane and limping along. He has taken a dose of Croton oil; but, though causing free purgation, it has not benefited him. He complains of great pain along the peroneal nerve.

Where there is pain along a particular nerve, and limited to one spot, it is generally gouty, rheumatic, or syphilitic, as these diseases affect the fibrous tissues, which swell and compress the nerve.

If there be reason to suspect a syphilitic origin to the neuralgia, then the treatment would consist in giving mercury in the form of calomel, with a little James's powder and some morphia, until salivation is produced.

Neuralgia about the face is thus frequently relieved when dependent on syphilis, which is often the case, as the nervous branches are numerous, and pass through different foramina lined with periosteum, the slightest affection of which causes it to press upon the nerves in contact with it. In other cases, the neuralgia, especially that form known as *tic douloureux* arises from malaria. When it occurs from miasmata, it is cured by quinine, combined with morphia.

So little evidence of disease does this patient before us present, that there has been some suspicion that he feigned to be worse than was really the case, in order to retain his comfortable quarters for the winter; but this suspicion is probably groundless.

Various methods have been employed to procure relief, but without avail. Counter-irritation has been made in various ways; small blisters have been placed up and down the course

of the leg, which seem to have done more good than anything else. Sometimes large doses of the spirits of turpentine are given with very great advantage.

Many cases have been cured by touching a hot iron between the little toe and the toe next to it, until the part is sore. Malgaigne recommends touching the helix of the ear in the same manner. This, he says, will often produce an instantaneous cure from the general shock to the nervous system. So with other remedies.

In these cases it is necessary to examine the hip joint, to see whether there exists any sign of disease.

In some of these cases, the greatest benefit has been derived from acupuncture, a practice which originated with the Chinese and Japanese.

Formerly, Dr. Pancoast was in the habit of passing needles through with great care, so as not to strike the nerve; now he prefers to run the needles directly through the nerve and pin it down upon the ischium.

The needles, should be inserted by rotation, separating the tissues, for they will not pass through the fibres, but separate them and pass between. A needle might be passed through a great vessel without doing damage, and through the heart without serious consequences. When an acupuncture needle is passed through a nerve, it often gives rise to a feeling of heat or a glow of warmth through the part to which the nerve is distributed.

Dr. Pancoast has seen cases of neuralgia of the scalp in which death would have ensued, but from the adoption of this process, and he has passed as many as eighteen or twenty at one operation, driving the pins as far as possible into the bones of the skull, producing perfect relief in the course of a few minutes.

In the present case, the acupuncture needles were passed at small distances through the nerve into the periosteum covering the ischium, pinning the sciatic nerve to the tuberosity of the ischium. The needles are to be left in for some time.

January 23d. It is now certain that injustice was done the patient by the suspicion of feigning the disease. As he walks he presses the outer border of the foot upon the ground, raising the inner border, though, by a straining effort, he can succeed in bringing the inner border to the ground. This is owing to a neuralgic condition of the cutaneous nerves. The metatarsal bone of the little toe is pressed down upon the floor as he walks.

Since the acupuncture he has had no pain about the sciatic notch ; but otherwise he is not improved, and he walks no better than before.

When asked to point out the seat of pain, he traces up distinctly the cutaneous branch of the musculo-cutaneous nerve, a division of the peroneal in the ham going up to the head of the fibula.

There is no locality in the body where the neuropathic condition is more difficult to remove than in this branch, which winds around the head of the bone, and, passing sometimes underneath one of the peronei muscles, winding around the posterior portion of the exterior ankle bone, while another branch winds around the foot.

Perhaps it is to avoid the motion of these muscles that he walks with his foot on its outer border.

Dr. Pancoast has sometimes found neuralgia, involving this nerve, utterly beyond control. He has tried the hot iron, blisters, the endermic use of morphia and of strychnia, without much benefit, and it is not a nerve which we dare to divide, because such procedure would be followed by paralysis of the peronei muscles, as well as of sensation of the outer margin of the foot ; it would produce dropping of the toe, in this effect analogous to the musculo-spiral nerve of the arm.

It is proposed to try the effect of a number of moxas along the course of the sciatic nerve, and if benefit should result from this treatment, to keep up a succession of blisters.

The hot iron of Carrigan has already been applied, but without benefit.

Pressure over the sciatic notch produces no longer pain, though it made him wince, before he was subjected to acupuncture.

The moxas is preferable in this case to the hot iron, because it burns more slowly and thereby makes a longer and deeper impression.

A quantity of lint, wet with warm water, was laid about the part selected for the application of the moxas, in order to protect the surrounding skin from the scintillation.

The moxas employed were made of gun cotton which had been soaked in a solution of the chlorate of potash, and allowed to dry completely ; the cotton being then rolled up into rounded masses and fastened in a cylindrical form by a piece of linen wrapt round them.

Moxas may be made of other material ; they are made from the pith of the sun-flower plant ; of pledgets of old linen ; of

rotten wood completely dry and powdered and mixed with alcohol, rolling the mass into a cylindrical form, which was the favorite moxa of Baron Larry.

It was not desirable, in the present instance, to administer an anæsthetic, because, in order to judge of the impression made upon the nervous system by the application, it is necessary to retain the sensation of the patient.

Three moxas were applied along the course of the nerve; one where it winds around the ankle and the others higher on the limb. Immediately after the moxas had ceased burning, the parts around were washed with strong aqua anemonia as a contra-stimulus.

The day following the application of the moxas, the man was able to walk about the ward with very little difficulty and considered himself almost well. The day after, however, he began to relapse a little, and the next day he did not appear to walk much better than he did before the moxas were applied, though he places the foot more firmly on the ground.

His condition is much better in the morning than later in the day.

There is no local specific disease in these cases. It is a general affection of the nervous system, which manifests itself in some particular nerve. It is quite different from the sciatica, which sometimes comes from some affection of the neurilemma of the nerve, or from syphilitic or other disease of the periosteum, which causes pressure upon the nerve.

When the hot iron is applied in these cases, as recommended by Malgaigne, it is not with the hope of benefit from the local effects of the remedy, but it is with the hope that the shock produced upon the whole mass of the nervous system will produce relief.

The patient has had no return of the pain about the sciatic notch, or at the lower part of the limb; but it still remains about the femoral portion of the sciatic nerve, to which some more moxas will be applied.—*Med. and Surg. Reporter.*

Clinical Remarks on Acute Articular Rheumatism at the Pennsylvania Hospital, February 13, 1861. By FRANCIS G. SMITH, M. D., Attending Physician.

John Eulen, a native of Belgium, two years and a half a resident of this country, has been sick for seventeen days with acute articular rheumatism.

In presenting the case to the class Dr. Smith made the following remarks: When I took charge of the wards, on the first of the month, I found this man sick in bed with acute articular rheumatism. He was attacked about a week before I came on duty with fever, hot skin, profuse perspiration, pain and heat in the joints, but had no diarrhœa. He presented, in other words, well-marked symptoms of rheumatic fever, with articular implication. There was presented that peculiar, flushed look often seen in acute articular rheumatism; the surface was perspiring, emitting the peculiar acid smell; the pulse was full and tense; he had pain on moving the joints, which is characteristic of this disease. As you see him now these symptoms have disappeared entirely, so that he can walk without pain, sleep without being disturbed, and considers himself well. This is a disease constantly met with. Perhaps no disease falls more frequently under the observation of the physician than acute rheumatism, whether it presents itself in the form of rheumatic fever, or whether complicated with articular affections. It will not be out of place, therefore, to express some views in regard to its pathology, and also in regard to what has been a successful plan of treatment.

In the first place, what is the pathology of this disease, and upon what does it depend?

Is it purely a local disease manifested in inflammation of certain joints, or does it depend on the existence of a poison in the blood?

Gout, we know, depends on the existence in the blood of lithic acid, which results from the retrograde metamorphosis of the products of animal food introduced into the system over and above its wants. Those who indulge in the pleasures of the table, eat largely of animal food, and take but little exercise, take into their body more nutritive material than is necessary to make up for the wear and tear continuously going on in the system. If a man eats a large quantity of animal food, and takes sufficient exercise to burn up all the excess, he will probably escape disease; but, if in connection with luxurious living, he leads an indolent life, and takes an insufficient amount of oxygen into his system, that food will undergo changes in its backward progress into creatine, creatinine, uric acid, urea.

These changes require the introduction of oxygen into the blood,—in other words, a certain amount of combustion must take place for their production; it, therefore, a man takes exercise sufficient to carry on all these retrograde metamorphoses, the surplus matter will make its escape from the system

in the form of urea. If it stop short of this, the uric acid will accumulate in the blood, and is regarded as the materies morbi of gout.

Rheumatism depends on the existence in the blood of an analogous poison—lactic acid—in consequence of a defect in the primary or secondary assimilation of the food as taken into the system. One reason why it prevails more than gout among the poor, is that the food which they consume is more liable to be converted into lactic acid than that consumed by the better classes of society. In the higher classes, where animal food is mostly indulged in, lithic acid is the result of the metamorphosis, while in the poorer classes, who rely on farinaceous food, the transformation of the latter is into lactic acid.

Whenever this material accumulates in blood in large quantities, in consequence of an inability to undergo the transformation into carbonic acid, every effort is made on the part of nature to eliminate it from the whole system. We thus find it in the acid perspiration met with in rheumatism. I have noticed the effect of this acid perspiration on litmus paper, by putting it in contact with the bedewed surface of the skin, and seeing it change from blue to red.

It is, however, frequently observed that the profuse sweating which is so constantly seen in this disease, does not always relieve it, and it seems, therefore that this outlet is not sufficient for the elimination of the poison. There are other outlets by which it attempts to escape from the system; among these are, especially, those surfaces which we find well supplied with blood, and where the blood vessels are comparatively naked; where the blood circulating in them is but little exposed to any detention from the glandular structures, and where, therefore, their contents are most readily able to escape. Thus, we find the serous membranes, the peritoneum, pleura, pericardium, even the arachnoid membrane, but more especially the synovial membranes of the joints, to be some of the outlets from which this materies morbi endeavors to escape. In a patient affected with acute articular rheumatism, the synovial membranes are the localities where the disease most frequently manifests itself; congestion takes place in them; there is a large supply of blood, in consequence of which, a diseased synovia is poured out, loaded with this acid secretion, and this, acting as an irritant, produces pain in the joint, and causes that swelling and bulging of the synovial capsules so constantly seen in the disease. This is the reason why you find in the large joints, heat, swelling and redness.

The synovial capsules are not the only ones liable to be affected ; it is not unusual to find a patient with rheumatic fever laboring under peritoneal rheumatism, or even peritoneal inflammation—an accident not very common, it is true, but which does occur sometimes. Pleuritis is not an unusual complication, while pericarditis is so common and frequent, that many pathologists contend that you never meet a case of acute articular rheumatism, without having, at the same time, a pericardial inflammation.

Endocarditis is also a common complication ; in fact, in all these surfaces where the blood escapes with much difficulty we may have manifestations of disease presenting themselves ; sometimes even we have pneumonia.

There are other materials capable of producing these same symptoms. There is a puerperal articular rheumatism from a materies morbi derived from the internal surface of the uterine. The matters detained contaminate the whole blood, and often give rise to a form of rheumatic fever, accompanied with swelling in the joints, sometimes very painful, going further than in ordinary acute articular rheumatism, so as to produce inflammation, ulceration, destruction of the articular surfaces, and filling the joints with pus. From the simple introduction of certain noxious materials in the blood, the whole train of symptoms follow ; they act as a ferment, and nature endeavors to eliminate them in the manner described.

If this be the theory of rheumatism—and there seem to be strong reasons for accepting it, as ably illustrated in the late Dr. Todd's clinical lectures—what should be the proper plan of treatment ?

What is the plan of treatment in all cases where there is a poison in the blood ? Certainly, elimination.

In scarlatina the endeavor of nature, and the object of treatment, is to eliminate the poison ; so in small-pox, and indeed in all exanthemata, depending on the presence of a poison in the blood.

In typhus and typhoid fever where there is an introduction of a poison in the blood, certainly the safest plan of treatment is elimination with sustentation.

In articular rheumatism we see that the skin is endeavoring to throw off this acid by profuse perspiration. Let us then trust her, and help nature, and try to assist in throwing off the poison by the administration of diaphoretics. This we can readily do by a class of diaphoretics, the salines, which are

known to have a direct tendency toward the cutaneous surface. Another symptom of the disease, which it is important to meet, is the pain. Two indications, therefore, present themselves—first, to assist the elimination, and, secondly, to relieve pain.

By combining the saline diaphoretic with some opiate and a little ipecacuanha, we have fulfilled all these indications.

If the pain is not very severe we may omit the opium altogether, and adopt a more thoroughly eliminating process by the administration of some of the carbonates of the alkalies.

In the case presented to the class, the plan pursued was to give three times daily ten grains of the acetate of potash, (the old sal diureticus,) in combination with an equal quantity of carbonate of potassa, so that the patient should take three times a day twenty grains of the mixture. It was given freely in diluent drinks. It produced free diuresis, and, besides, caused an unusual amount of fluid to be eliminated in the course of twenty-four hours by diaphoresis also. Through these two instrumentalities the poison seems to have been thoroughly eliminated from the system. While doing this, we were careful to sustain the patient's strength; for in all cases where blood-poisoning exists, there is a tendency on the part of the poison to depress the powers of the system, and to produce a toxical influence on the nervous system, which manifests itself in delirium, or extreme depression of the nervous powers. We give, therefore, animal broths, with a slight amount of stimulus. We also endeavored to eliminate this poison from his blood by local applications, tending to increase the sweating powers of his joints; they were closely wrapped up in carded wool, carefully prepared; as this is compressible into all forms and shapes, it could be wrapped all around the limb or painful joint. Outside of this, an envelope of oiled silk was placed, which kept up a profuse sweating, so that when removed, after having been on for twenty-four hours, the silk was completely loaded with perspiration.—*Med. & Surg. Reporter.*

Prof. Millar on Tobacco.—[This learned surgeon has of late been paying much attention to the social questions connected with the medical profession. We noticed a year ago his work "on Prostitution," and later still his work "on Alcohol its use and abuse." He has now turned his attention to Tobacco, and as we have lately given the views of several authors on this important luxury, we extract from the *Edinburgh Scotsman* the report of Prof. Millar's speech at a recent meeting of

the *British Anti-Tobacco Society*. The speeches of the learned opposers we do not trouble ourselves about, as their opinion is no weight outside their own city, and of precious little there.]

Professor Miller moved the first resolution:—"That as the constituent principles which tobacco contains are highly poisonous, the practises of smoking and snuffing tend in a variety of ways to injure the physical and mental constitution." (Hear, hear.) That statement, he said, perhaps required a little explanation. He did not mean to say that because a substance was in itself poisonous, its use in all possible circumstances must prove injurious to mind or body, or both together; but what he said was, that tobacco and other narcotics, being well known rank poisons, if they were taken unnecessarily, were taken unwisely and unsafely. This was just in accordance with one of the simplest and most certain rules in therapeutics—that if there was a diseased condition in a man's body which required the use of tobacco, or opium, or prussic acid—strongly poisonous as those remedies were—yet when judiciously and skilfully administered, they might be taken not only innocuously, but with the greatest positive advantage. They would do the man no harm, but good. All this was in accordance with what was technically called the law of tolerance; but this law had a converse; and the converse here was that if a person took a poison into his system which was not required by any diseased condition of body, there was no law of tolerance to protect him; and it not only did him no good, but it did him harm more or less. Now, tobacco is one of the strongest narcotic poisons with which we are acquainted; and the shape in which he would put the question was—were the people who used it so extensively protected by the law of tolerance, or were they met by the converse of that law, which rendered the use of it unsafe? He presumed that 99 out of every 100 of those who were to be seen going smoking about the streets, or using tobacco in some form or other, would never dream of putting in such a plea as that they used it medicinally for some disease under which they were laboring—therefore, it naturally and necessarily followed from the principle which he had laid down that all these people were injuring themselves more or less. (Hear, and applause.) He would next proceed to inquire what were the evil effects which tobacco produced upon the physical and mental constitution. Medical men were but too familiar with these evil effects. They knew that it injured the whole organism, put the stomach out of order, and weakened the frame. But it acted mainly upon the nervous system—not strengthening, on the contrary, weakening it and depriving it of its tone. No man who was

a hard smoker had a steady hand ; and as the aucients said, *Ex pede Herculem*, he would say, *Ex manu hominem*—by its effects on the man's hand we might judge of its effect upon his whole nervous system. But not only had it a debilitating and paralyzing effect ; but he could tell of patients who were completely paralyzed in their limbs by inveterate smoking. He might tell of a patient of his who brought on an attack of paralysis by smoking, who was cured indeed by simple means enough, accompanied with the complete discontinuance of this practice ; but who afterwards took to it again, and got a new attack of paralysis ; and who could now play with himself as it were, because when he wanted a day's paralysis or an approach to it, he had nothing to do but to indulge more or less freely with the weed. Then as to the effect of smoking upon the intellectual powers—for he would leave its moral and social consequences to other speakers—there could be no doubt that it obfuscated mental vision more or less. “Blowing a cloud” was a very good symbol of the cloudy kind of ratiocination which the person who did so got into in consequence. It might not be easy to prove that in individual cases, but it was not difficult to do so on a large scale. Only the other day, the French—among whom the practice was carried even to a greater extent than with us—made an estimate of its effects in their schools and colleges. They took the young men attending these institutions, classified them into those who smoked habitually, and those who did not, and estimated their physical and intellectual standing—perhaps their moral standing too, but he could not say. The result was that they found that those who did not smoke were both the stronger lads and better scholars, were altogether more reputable people and more useful members of society, than those who habitually used the drug. What was the consequence ? Louis Napoleon—one of the good things which he had done—instantly issued an edict that no smoking should be permitted in any school, college, or academy. This edict in one day put out about thirty thousand pipes in Paris alone. Let our young smokers put that in their pipe and smoke it. That was one of the advantages of an autocracy ; and he (Prof. Miller) would be very glad if the Lord Provost had the power to issue a similar edict in Edinburgh, which he was quite sure would derive much benefit from it. Perhaps there might be smokers present who thought this all stuff ; and who were ready to say that they knew from experience that smoking did them good, and that they could reason a great deal better after a comfortable smoke than they could before it. Very good ; but that only made his case all the stronger.

Let a healthy man, unaccustomed to smoking, take up a pipe of tobacco and smoke it to the end, or give him three or four pinches of snuff in succession, and then let them ask him whether he felt better or worse. Set him to work out a difficult problem, and see what was the condition of his reasoning powers. The man would at once admit that they were in very bad condition. The men who felt the better after using a narcotic were just the men who were slaves to it; and it was merely the disordered and morbid state of their physical and nervous system, which required to be tickled up again with that stimulant which had already exhausted and weakened them. Professor Miller went on to refer at some length to the effects of opium among the Chinese, and showing many points of similarity between it and tobacco smoking when extensively indulged in. He then referred to the increase of the use of tobacco, particularly in the form of smoking among the young, remarking that its prevalence—taking into account its unfailing physical, intellectual, and moral effects—was calculated to alarm those who had the welfare of the community at heart. After relating several anecdotes tending to show the extreme difficulty, and in some cases the impossibility, of giving up the habit when it had been fairly formed, notwithstanding the pain which it caused by inducing cancer or other diseases, Professor Miller went on to say it could not be denied that there was a diversity of medical opinion regarding the injurious effects of the use of tobacco. But he would ask them to inquire who were the medical men who would come forward as the champions of tobacco? They were men who were themselves smokers. But these men, by their own addiction to this vice, had put themselves out of court, and their opinion was therefore of no consequence. The man best qualified to give an opinion on the subject was the man who had been so far enslaved by the habit, but who had given it up. Professor Miller went on to say that he was in this position, having at one time been addicted to snuffing, but after ten or a dozen vain and difficult attempts he had given it up. He had tried it both ways, and he had a bright recollection of the comforts of snuffing. The first pinch in the morning was delicious; the pinch after dinner was—magnificent! But until that pinch was got he was stupid, dull and restless, and the effect, both mentally and corporeally, was evil, and nothing but evil.

Mr. Reynolds, Secretary to the British Anti-Tobacco Society, seconded the resolution. He began by stating that tobacco contained two poisonous principles, one of which was nicotine, and the other an essential oil which was so injurious and acrid

in its fumes that if a single drop of it were burned in the hall, every one of his auditors would feel themselves compelled to rush to the door. He proceeded to narrate a number of anecdotes which had come under his own observation and experience tending to show the injurious effects of "the weed" upon the physical and mental constitution of man, as well as the benefits which had followed the total discontinuance of the indulgence.—*Nashville Med. & Sur. Jour.*

On the Action of Iodide of Iron upon Phthisis. By Dr. COTTON, Physician to the Hospital for Consumption at Brompton.—Dr. Cotton tests the action of this compound upon twenty-five cases, not selected, but taken just as they arrived at the hospital, those only being excluded which were either at too advanced a stage to admit of any remedial treatment, or which happened to be laboring under some inflammatory or other important complication.

The iodide was administered in the form of the *syrupus ferri iodidi* mixed with water, in doses of a drachm, twice and sometimes three times a day. It was continued, according to its effects, for various periods; the shortest one month, and the longest three months.

Of the twenty-five patients, eleven were males, and fourteen females; their ages varied from eighteen to forty years. Eight were in the first stage of the disease; three were in the second stage; and fourteen presented positive evidence of pulmonary cavities. In ten cases there was great improvement; in four, moderate improvement; and in eleven, no improvement.

In analyzing these results, it was found that of the ten greatly improved, four were in the first stage of the disease, and six in the third. Of the four moderately improved, one was in the first stage, one in the second, and two in the third. Of the fourteen in whom no improvement was noticeable, three were in the first stage, two in the second, and nine in the third.

Three cases of improvement were decidedly marked; two of these patients, whose disease was only in the first stage, left the hospital with their pulmonary affection quiescent, and apparently restored to health, calling themselves indeed quite well; and the other, although more advanced, and in the third stage of phthisis, was marvellously improved, and able to resume his occupation.

In two cases, hæmoptysis came on during the administration of the iodide, and in two the iodide was discontinued

on account of headache and dyspepsia. The spitting of blood probably was in no way attributable to its use, hæmoptysis having occurred previously in the same patients; but the other symptoms having ceased or diminished with a change of medicine, might perhaps be fairly referred to its employment. Except in those instances, the iodide of iron appeared to agree very well with the patients, several of whom improved very much in appetite and strength.

Three of the patients in whom there had been no improvement, afterwards derived benefit from other medicines.

In eight of the cases cod liver oil was occasionally taken in combination with the iodide; one-half of these we found to belong to the class of improved, the other half to that of not improved.

Of the fourteen improved cases, ten gained in weight, some of them very considerably, three remained in *statu quo*, and one lost two pounds while under treatment. The improvement, however, was not always in proportion to the increase of weight, some of the patients who had increased the most, having improved the least.

It is, perhaps, worth recording, that one of the patients took, accidentally, an ounce of the syrup, which would contain thirty-two grains of the iodide of iron. It produced a distressing feeling of weight in the epigastrium, attended with nausea and subsequent purging. For several weeks afterwards, there was a loss of appetite, depression of spirits, and a constant feeling of uneasiness in the region of the stomach, all of which, however, gradually passed away, leaving the patient apparently none the worse for the overdose.

After making due allowance for the influence of concomitant circumstances, such as rest, hygiene, and hope, all of which claim a prominent share in the improvement of all hospital patients, we are justified, Dr. Cotton thinks, in arriving at the following conclusions:

1. Syrup of the iodide of iron, in doses of a drachm, twice or three times a day, occasionally produces headache, with some dyspeptic symptoms; but for the most part, it is found to agree very well with consumptive patients.

2. Although very far from exhibiting what might be termed a *specific* effect, it nevertheless seems to act very beneficially in a fair number of consumptive cases, especially in those where the disease is only at an early stage.

3. Under its influence the patient's weight is generally increased.—*Med. Times and Gaz.*

BOOK AND PAMPHLET NOTICES.

An Elementary Treatise on Human Anatomy. By JOSEPH LEIDY, M. D.

The above work, from the press of the well known firm of J. B. Lippencott & Co., Philadelphia, was announced in a former number of the Examiner. The book is worthy of more than a passing notice, and we desire briefly, again, to call the attention of the profession to its merits. Professor Leidy has given us a work concise, lucid and complete, so far as the wants of the student are concerned—one which we take peculiar pleasure in commending to our countrymen as comparing favorably with the best works in our own or any other language. An American work, with us, should have preference, if our national vanity is not gratified at the disparagement of better books, and we are happy to say that in several respects, we consider it superior to any elementary work which has yet appeared. None so much as a teacher realizes the necessity of a correct and uniform standard of pronunciation of anatomical names; though every educated man in our profession has noticed a sad discrepancy or deficiency in this respect. The work before us adopts an accentuation of technical terms, which, so far as we have noticed, is faultless, and of great assistance to a critical student.

We object to its *Anglicism* of the original, long used names of anatomical structures, which passing from the Latin and Greek to the modern languages, are recognized by all educated men alike. We believe that every medical student should attain such a knowledge of those languages, as would render the meaning of their terms as evident as though expressed in his own vernacular tongue.

The objection is in a measure obviated by the retention of the original names in foot notes, but these will be treated by the student very much as the author anticipated—the association incorporating in the mind the name italicised in the text.

The histological descriptions of the tissues are fine, and the figurings of microscopic appearances, *beautiful*, excelling any

thing of the kind which we have met in any practical treatise on anatomy.

The work is illustrated by 392 engravings, well executed.—Those representing the nervous distribution are particularly fine.

In typographical appearance and mechanical execution, the Publishers have evidenced a degree of taste which leaves nothing further to be desired.

We most cordially commend it to the profession as not only meeting the wants of the student, but all ordinary requirements of the general practitioner.

J. H. H.

Electro-Physiology and Electro-Therapeutics ; showing the best methods for the Medical Uses of Electricity. By Alfred C. GARNETT, M. D., &c. Second Edition. Boston: Ticknor & Fields, 1861.

This is a large and elegant volume of 716 pages octavo.—The first edition was pretty freely noticed and strongly recommended, in the pages of the Examiner only a few months since. Hence we will only add in reference to the second edition, that it contains several pages of additional matter, and several new illustrations. Both students and practitioners will find it a work of much intrinsic value. Price, \$3. For sale at the extensive book-store of S. C. Griggs & Co., of this city.

A Practical Treatise on Phthisis Pulmonalis; containing its Pathology, Causes, Symptoms and Treatment. By L. M. LAWSON, M. D., Professor of Clinical Medicine in the University of Louisiana. Rickey, Mallory & Co. Cincinnati: S. S. & W. Wood, New York. From the Cincinnati Publishers.

This is a well bound octavo volume of 557 pages. From the well known, and deserved reputation of the author, together with a hasty glance at the contents of the work, we do not hesitate to recommend it as worthy of a place in every physician's library. We shall give it a more extended notice when we have had time to examine it with the necessary care.

Lives of Eminent American Physicians and Surgeons of the Nineteenth Century. Edited by Samuel D. Gross, M. D., Professor of Surgery in Jefferson Medical College. Philadelphia: **Lindsay & Blakiston**, 1861.

This is a large octavo volume of 836 pages, published in elegant style. It contains pretty full and highly interesting biographical sketches of thirty-two eminent American physicians and Surgeons, written by almost as many different authors. We think no reader can look over the following, from the table of contents without feeling, a strong desire to possess the work.

- Biography of Benjamin Rush, by Dr. Samuel Jackson,
 “ John Warren, by Dr. Buckmaster Brown,
 “ Caspar Wistar, by Dr. Caspar Morris.
 “ John Syng Dorsey, by Dr. Sam’l D. Gross.
 “ Samuel Bard, by Dr. James P. White.
 “ Ephraim McDowell, by Dr. Sam’l D. Gross.
 “ Samuel Brown, by Dr. LaRoche,
 “ John D. Godman, by Dr. T. G. Richardson.
 “ Samuel L. Mitchell, by Dr. John W. Francis.
 “ David Hosack, by Dr. Alex. E. Hosack,
 “ Phillip Syng Physick, by Dr. John Bell.
 “ John Eberle, by Dr. Thos. D. Mitchell,
 “ Wm. J. Macnevin, by Dr. John W. Francis.
 “ James Thatcher, by Dr. N. S. Davis,
 “ George McClellan, by Dr. J. H. B. McClellan.
 “ Jacob Randolph, Dr. J. Aitken Meigs,
 “ Amariah Brigham, by Dr. E. K. Hunt,
 “ Chas. A. Luzenberg, by Dr. Thos. M. Logan.
 “ Joseph Hartshorne, by Dr. E. Hartshorne,
 “ Sam’l Geo. Morton, by Dr. Sanford B. Hunt.
 “ John B. Beck, by Dr. C. R. Gilman,
 “ Daniel Drake, by Dr. Samuel D. Gross.
 “ Nathaniel Chapman, by Dr. J. B. Biddle,
 “ Lewis C. Beck, by Dr. Alden March,
 “ Wm. E. Horner, by Wm. Horner, Esq.,
 “ John A. Sweet, by Dr. Austin Flint,
 “ Elisha Bartlett, by Dr. Samuel H. Dickson,

- Biography of Moreton Stille, by Dr. Sam'l H. Dickson,
 " Theodric R. Beck, Dr. Frank H. Hamilton,
 " John C. Warren, by Dr. Edward Warren,
 " Charles Frick, by Dr. Frank Donaldson,

No work has issued from the medical press, in this country, that should meet with a more cordial reception, from all classes of readers. We hope the rapid sale of this, will induce the speedy publication of an additional volume.

For sale by S. C. Griggs & Co., of this city.

Theory and Practice of the *Movement-Cure*: or the Treatment of Lateral Curvature of the Spine; Prolapsus; Indigestion; Constipation; Consumption; Angular Curvatures, and other Deformities; Diseases Incident to Women; Derangements of the Nervous System; and other Chronic Affections; by the Swedish System of *Localized Movements*. By Charles Fayette Taylor, M. D.; with illustrations. Philadelphia: Lindsay & Blakiston, 1861.

This is a small octavo volume, containing 295 pages, done up in excellent style. It contains the most full and interesting exposition of systematic muscular exercise, and its effects in preserving health and curing diseases, with which we are acquainted. The subject is one of much importance, and hitherto, altogether too much neglected. The present work fills a vacancy in our Medical Literature, and may be read with much profit by every practicing physician. For sale by S. C. Griggs & Co., Chicago.

Diphtheria; Its Nature and Treatment, with an account of the History of its prevalence in various countries. By Daniel Denison Slade, M. D., being the Dissertation to which the Fiske Fund Prize was awarded in July, 1860. Philadelphia: Blanchard & Lea, 1861.

This is one of the best Monographs that has yet appeared on the subject of Diphtheria.

For sale at the excellent Book Establishment of W. B. Keen & Co., Lake street, Chicago.

A Treatise on Fever; its Cause, Phenomena, and Treatment. With an Appendix containing views on some Female Diseases, some Diseases of Children, &c. By REZIN THOMPSON, M. D., Nashville, Tenn. 1860.

This is a title to a small octavo volume of 440 pages. It is published in fair style by the author; but the style in which it is written, and its pretensions are certainly unique, and amenable to severe criticism. We hardly think the importance of the work, however, sufficient to justify the expenditure of so much time and space as would be necessary for a serious criticism. The chief substance; the special pith of the book, may be stated in a few words.

The author adopts the well known neurological pathology of Fevers, referring the first link in the chain of morbid action to a morbid impression on the nervous system. He intimates a belief that this morbid impression, is produced by poisonous animalcula. As an antidote or a specific remedy for these animalcula, or whatever other poison may cause fever, he recommends the *oil of Sassafras*, with as much confidence as the noted Samuel Thompson ever did his Lobelia and Steam.

On this point we quote his language as follows:

“Having come to the conclusion that the cause of all idiopathic fevers is a something possessing the property of a narcotic poison, I believed that the oil of sassafras would destroy or counteract, or neutralize it. I had tried it for these purposes a thousand times, successfully, in other analogous cases. For example: I had tried it repeatedly for destroying insect life, and found it immediately fatal to every kind; had also tested its powers upon the infusoria in impure water, and saw it destroy them instantly. I therefore felt assured that if the cause was really the presence of minute animalcules disturbing the nervous centres, this would be conveyed by the circulation in sufficient strength to destroy them at once. I also knew that it would as certainly destroy or neutralize any poison which they might have infused into the system, for I had tested its power fully in destroying the poison of insects and reptiles, such as mosquitoes, fleas, spiders, bees, wasps, etc.; and, on one occasion, had an opportunity of testing its powers over the venom of the snake known as the copper-head, and found it to succeed promptly. I also knew, from repeated experiments, that it would destroy or prevent the effects of vegetable narcotics, such as tobacco, henbane, etc.; I therefore

judged that, should I be mistaken in the cause of fevers being animalcules, it must of course, then, be a poisonous gas; and, believing, from observing its effects, that it must be of the narcotic kind, I had good reason to infer that the oil of sassafras would succeed, should this be the case. I therefore expected it would meet the first indication, and was not disappointed. I have seen its exhibition followed, again and again, with as sudden a disappearance of the febrile movement as I ever saw follow the opening of an abscess, when the fever originated from that cause."

His favorite mode of prescribing the oil, is in the following combination, which he calls "Fever Syrup:"

R	Syrup of Rheubarb,	℥jv.
	Tinct. Valerian,	℥j.
	Oil of Sassafras,	20 gtts.
	Piperin,	10 grs.
	Supr. Carbonate of Soda,	20 grs.

Mix. Dose, a table-spoonful every two or three hours.

We have received, through the Book Store of W. B. Keen & Co.; Lake Street, Chicago; a copy of the Transactions of the American Medical Association for 1860; Lyons on Fevers; and Dalton's Human Phisiology; which we shall endeavor to notice more fully in our next issue.

EDITORIAL.

ILLINOIS STATE MEDICAL SOCIETY.—We hope the profession throughout the State, will remember that the next regular meeting of the State Society will be held at Jacksonville, commencing on the first Tuesday in May. The place of meeting is attractive, and the objects to be accomplished important. We trust the profession in all parts of the State will be represented.

MEDICAL COLLEGE COMMENCEMENTS IN THIS CITY.—*Rush Medical College.*—The eighteenth annual commencement of this institution was held in the college hall, on Wednesday evening Feb. 20th. The degree of M. D. was conferred by the President of the College faculty, Prof. Brainard, on *thirty-seven* candidates, as follows:

Allen S. Barnt, Charles Bunce, Wm. C. Brown, Sidney S. Buck, Benj. H. Bradshaw, Wilford Bates, Henry S. Blood, Daniel M. Cool, Elijah A. Clark, Thos. J. Dunn, Edw. C. DeForrest, M. M. Eaton, Henry W. Maynard, Richard E. McVoy, John Murphy, Samuel O. Owen, Allen M. Pierce, Henry V. Passage, Madison Ruce, Geo. Egbert, Wm. B. Graham, Henry J. Herrick, Zenas P. Hanson, Clinton D. Henton, John F. Kealdes, Ezekiel Keith, Enoch W. Keegan, Abner D. Kimball, Robt. M. Lackey, Z. James McMaster, James M. Mayfield, E. Fred Russell, Edward P. Talbot, Chas. B. Thompkins, Theodore W. Stull, Israel B. Washburne, O. G. Walker.

The honorary degree of M. D., was conferred upon Robert C. Hammill, Chicago, and Theodore Hoffman, Niles.

MEDICAL DEPARTMENT OF LIND UNIVERSITY.—The second annual commencement of this college was held in the third Presbyterian Church on the evening of the 5th of March. A large and attentive audience was present. The degree of M. D., was conferred by Prof H. A. Johnson, President of the College Faculty, on *twelve* candidates as follows :

J. M. Barlow, of Bellair, Ill. ; C. Dumreicher, of Chicago, Ill. ; F. S. C. Grayston, of Huntington, Ind. ; G. W. Morrill, of Shopiere, Wis. ; F. W. Reilly, of Chicago, Ill. ; Hiram Wanzer, of Chicago, Ill. ; T. J. Bluthardt, of Chicago, Ill. ; S. L. Fuller, of Chicago, Ill. ; O. A. Lewis, of Huntington, Ind. ; J. Nicolai, of S. Bend, Ind. ; D. W. Stewart, of Moline, Ill. ; H. T. Woodruff, Joliet, Ill.

The *ad-eundem* Degree of M. D., was conferred on Drs. D. C. Roundy and C. Miller, both of Geneva, Wis. The Honorary Degree of M. D. was conferred on Prof. T. Deville of England.

A premium was awarded to H. T. Woodruff of Joliet, Ill., for the best Inaugural Thesis ; another to Frank W. Reilly of Chicago, for the best Clinical Report ; and another to F. S. C. Grayston of Huntington, Ind., for the second best Clinical Report.

The Valedictory address was then delivered by Prof. M. K. Taylor of Galesburg. The address will be found in the present number of the Examiner, and will be read with interest

and profit. After the exercises closed at the Church, the graduates and students, with the Faculty and guests repaired to the residence of Prof. N. S. Davis, where they enjoyed an entertainment and a social interchange of the most agreeable character.

BERKSHIRE MEDICAL JOURNAL.—Edited by W. H. Thayer, M. D., of Keene, N. H., and R. Cresson Stiles, M. D., of Pittsfield Mass.

We have received the first two numbers of this new monthly periodical, and take pleasure in placing it on our exchange list. It is neatly printed and edited with ability.

NOTE.—The above was designed for the February number of the Examiner, but was accidentally omitted. In the same number of the Examiner, under the head of Selections, were several pages of matter copied from the Berkshire Medical Journal, without being properly credited. Also a valuable article on Ergot copied from the Philadelphia Medical and Surgical Reporter, without credit. These omissions escaped our observation, by trusting the proof-reading of the selected matter to the publisher. We shall endeavor to be more careful in future.

CHANGE OF NAME.—The New Orleans Medical News and Hospital Gazette, has been changed to *New Orleans Medical Times*; and has passed under the editorial management of Anthony Peniston, M. D.

NEW YORK OPHTHALMIC SCHOOL.—The annual commencement of this institution was held in the fourteenth-street Medical College, in the presence of a large number of students and medical men. Peter Cooper occupied the chair. Dr. Stephenson, Senior Surgeon to the Institution, made a few preliminary remarks in regard to the organization and success of the institution, and concluded by awarding testimonials to the following gentlemen who composed the graduating class: J. Craig, Minn., G. W. Edwards, N. Y., C. F. Miesse, O., B. A. Watson, N. J., F. G. Stanley, M. D., Ill., J. E. Lynch, O.,

A. J. Harris, Penn., G. T. H. Scott, M. D. Iowa, W. L. Wheeler, N. Y., H. Hill, M. D., C. W., W. S. Souders, O., S. W. Briggs, M. D., N. B., J. L. Kiernan, M. D., N. Y., S. Ayers, N. J., H. S. Plympton, Mass., T. H. Stilwell, N. Y., W. R. Stilwell, N. Y., G. R. Wells, M. D. Wis., J. W. Robie, N. H., S. J. Dewey, M. D., Ill., A. D. Smith, Ga., C. R. Case, M. D., Mich., B. O. Reynolds, M. D., Wis., Calhoun Hill, N. C., R. V. M'Kim, M. D. Dr. J. P. Garrish, one of the Surgeons of the Hospital, delivered an excellent address to the students, and the Valedictory was spoken by Dr. James F. Kiernan, of the graduating class. The exercises were closed with a short address by Peter Cooper, who in the course of his remarks highly complimented the students connected with the Hospital, and in glowing terms eulogized the professors connected with the institution.

SUMMER COURSE OF MEDICAL INSTRUCTION.—The regular summer term of instruction in the Medical Department of Lind University, was commenced on Monday the 25th inst.; and will be continued until the first of October. A very respectable class of students were present, and have registered their names for the whole course.

HOMŒOPATHY AND THE MICHIGAN UNIVERSITY.—We learn from the Detroit Free Press, that the Legislature of Michigan, during its recent session, passed a law requiring the establishment of a chair of Homœopathy in the Medical Department of the State University, at Ann Arbor. It is claimed, however, and probably with truth, that the Legislature has no control over the subject; the constitution of the State having placed the regulation of the University and all its departments exclusively and fully under the charge of the Board of Regents. This board, only a few years since, after instituting a pretty thorough investigation in relation to the nature and claims of Homœopathy, refused to establish any such chair.

Whether the recent action of the Legislature will induce them to alter their former decision, remains to be seen.

We think, however, that they will not be guilty of so great an act of folly.

THE NEW SYDENHAM SOCIETY.

This is an English Society, instituted for the purpose of publishing standard works on Medical and Surgical subjects, at a low cost, so that they may be distributed among the largest possible number of the profession. The subscription is one guinea a year, (\$5.25, U. S. currency,) which entitles a member to all the publications for the current year. The works are not obtainable in our bookstores, or in any way except by joining the Society. The following list indicates their character.

THE PUBLICATIONS FOR 1859.

- Vol. I.—*Diary* “On Syphilis in Infants and Children at the Breast.” Translated by Dr. Whitley.
- Vol. II.—*Gooch* “On the most important Diseases of Women and Children,” with other Papers. Woodcuts. Prefatory Essay by Dr. Ferguson.
- Vol. III. *Memoirs on Diphtheria*. From various French sources. Selected and translated by Dr. Semple. With a Bibliographical Appendix by Mr. Chatto.
- Vol. IV. comprises the two Works of Professor *Schroeder Vander Kolk*, (1st) “On the Spinal Cord,” and (2nd) “On the Medulla Oblongata,” and “On the Proximate Cause and Rational Treatment of Epilepsy.” Translated by Dr. W. D. Moore, of Dublin. With numerous Lithographs.
- Vol. V. contains translations of the following Monographs :—
- 1st. *Kussmaul* and *Tenner’s* “Experimental Researches on the Effects of Loss of Blood in inducing Convulsions.” Translated by Dr. Bronner, of Bradford.
 - 2nd. *Wagner* “On the Resection of Bones and Joints.” Translated by Mr. T. Holmes. Numerous Woodcuts.
 - 3rd. Professor *Graefe’s* Three Papers on Glaucoma, Iridectomy, &c. &c. Translated by Mr. T. Windsor, of Manchester.

THE PUBLICATIONS FOR 1860.

- Vol. VI.—*Clinical Memoirs on Abdominal Tumours and Intumescence.* By Dr. Bright. Collected and reprinted from the Guy's Hospital Reports— Edited by Dr. Barlow. With numerous Woodcuts.
- Vol. VII.—*A Year-Book for 1859.*—The Year-book is designed to form a Register in condensed abstract of all Important Communications whether British or Foreign, in Medicine, Surgery, and their allied Sciences during the year. It will consist of five sections:—1st. Anatomy and Physiology. Edited by Dr. Harley. 2nd. Medicine. Edited by Dr. Handfield Jones. 3rd. Surgery. Edited by Mr. Hulke. 4th. Diseases of Women and Children. Edited by Dr. Graily Hewit. And 5th. Forensic Medicine and Toxicology. Edited by Dr. Odling.
- Vol. VIII.—*Frerich's Clinical Account of Diseases of the Liver.* Vol. I. With Woodcuts. Translated by Dr. Murchison.
- Vol. IX.—*Vogel and Neubauer* on the Examination of the Urine. A Manual intended for the assistance of the practical physician. With Woodcuts and Plates.
- Vol. X.—*Hebra's Atlas of Illustrations of Skin Diseases.*

The works for 1860, and probably those for 1859, may yet be had by subscribing for those years. The Subscription for 1861 is now due, and should be paid in advance, to secure the publications of the year. Thus pre-payment is essential to the efficient and prompt action of the Society in publishing the books, and relieves from embarrassing uncertainty. As it is a mutual benefit association, it is hoped that all members of the profession will take interest enough in it to mention it to their friends. The expenses of exchange and carriage are divided among the local members. The circulars of the Society may be obtained, and a specimen of the books seen at the office of Dr. V. L. Hurlbut, 122 Randolph Street, or at the office of the undersigned who is authorized to forward subscriptions.

CHAS. G. SMITH, M. D.,
95 Washington St. Chicago.

OBITUARY—DR. JOHN W. FRANCIS.—In the decease of Dr. John W. Francis—he died at 3 A. M. yesterday, at his residence in East Sixteenth street—New York has lost a marked and shining celebrity. His services to the profession he passionately loved and adorned are at an end; his genial face has faded from mortal view; his eloquence of anecdote, his rare and grand speculations, his noble and hearty benevolence, are no longer living and loved realities. His death was not expected. Though nearly 72 years old, he seemed hale and hearty. Afflicted with carbuncles on the back, he submitted last week to an operation which he thought very much relieved him. The draft on his physical energies proved too great. Suddenly, and without pain, he passed away, retaining his senses to the last.

John Wakeman Francis was born in this city, on the 17th of November, 1789. His father came from Germany, his mother was a Philadelphian, of Swiss descent. At an early age, John was placed in the printing office of George Long, in this city. His ambition soared above type-setting, and he early showed a fondness for books, a love for scholastic pursuits. Employing his leisure time in study, he proved himself an apt as well as a vigilant scholar. His genius was recognized, his industry rewarded. Judicious friends came to the aid of the young and striving student, and in 1807 he was enroled to enter the junior class of Columbia College, at the same time commencing the study of medicine under the celebrated Dr. Hosack. In 1809 he graduated, and at once gave his undivided attention to his medical studies. In 1810, in conjunction with Dr. Hosack, he commenced the publication of the "American Medical and Philosophical Register," both acting jointly as editors. In 1811 he received his degree of M. D. from the New York College of Physicians and Surgeons—his was among the first degrees granted by this College—and the same year he was admitted to partnership with Dr. Hosack, a partnership which continued through nine years. In 1813 he was appointed to the chair of *Materia Medica* in his *alma mater*.—*N. Y. Times*.

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THE CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M. D., EDITOR.

PUBLISHED BY WM. CRAVENS & CO.

132 LAKE-ST., CHICAGO.

The EXAMINER will be issued during the first week of each month, commencing with January, 1860. Each number will contain 64 pages of reading matter, the greater part of which will be filled with such contents as will directly aid the practitioner in the daily practical duties of his profession.

To secure this object fully, we shall give, in each number, in addition to ordinary original articles, and selections on practical subjects, a faithful report of many of the more interesting cases presented at the Hospitals and College Cliniques. While aiming, however, to make the EXAMINER eminently practical, we shall not neglect either the scientific, social, or educational interests of the profession. It will not be the special organ of any one institution, society or clique. But its columns will be open for well written articles from any respectable member of the profession, on all topics legitimately within the domain of medical literature, science, and education.

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THE CHICAGO MEDICAL EXAMINER

VOL. II.

APRIL, 1861.

No. 4

ORIGINAL CONTRIBUTIONS.

Remarks on the General Treatment of Strangulated Hernia, with the report of two cases. By A. FISHER, M. D., Chicago.
Read to the Chicago Medical Society.

The principal indication in the treatment of strangulated hernia, is the reduction of the protruding viscera, or whatever the hernial sac may contain.

In order to accomplish our purpose successfully, it is necessary to understand as clearly as possible, the condition of the parts concerned in forming the hernial tumor, in the particular case.

We should ascertain whether the hernia is recent or of long standing, whether it has usually been reduced without difficulty, if indurated and painful, how long it has been so, also the state of the system, pulse, &c. By obtaining a perfect history of the case, we are enabled to proceed more judiciously in the treatment of it, and we can judge better how long it will be safe to continue our manipulations for reduction, before resorting to an operation.

Should there be no induration or tenderness of the hernial tumor, we can make a trial for reduction at once; by placing the patient in the best position for relaxing the abdominal muscles as much as possible. Then by carefully manipulating the neck of the tumor with one hand, whilst steadily and firmly pressing with the other, in accordance with the case, we may sometimes accomplish our object. But without previous preparation we are often foiled; if so, we should lose no time in properly preparing the patient for a thorough trial.

In a majority of the cases, cold applications to the tumor will be of great service in relieving the pain and preparing the parts for reduction. For that purpose, I have been in the practice of applying ether, so as to keep up a constant evaporation, and have been much pleased with its effects; usually in less than an hour after applying it, the tenderness and pain subsides, cold produced by pounded ice may be equally beneficial, but I have succeeded so well with ether, that I have never used it. By whatever manner we make use of cold, it acts beneficially by condensing the gases, and constricting the vessels, thereby preventing or subduing congestion, and inflammation of the parts, though in cases where the constitution is feeble, the circulation languid, and gangrene is feared, it is not always safe to apply it. As a general rule, when cold applications are uncomfortable to the patient, and they do not lessen the pain and tumefaction, they should be discontinued, and warm or hot fomentations used in their stead, but the change should not be sudden, for reasons too obvious to mention.

In a practical point of view it is well to recollect that strangulation generally occurs, either by actual constriction of the protruding parts, producing inflammation, congestion and swelling, and consequently strangulation; or the inflammatory process may first commence in the viscera contained in the hernial sac, causing the parts to swell, thereby producing strangulation by pressure on the walls of the opening.

In the former case our resources are limited, for it is difficult to reduce the inflammation when we cannot relieve the stricture that caused it, but in the latter, if we can reduce the inflammation we remove the cause, and reduction is generally easily accomplished.

Should we become satisfied that strangulation was caused by the stricture, it would be necessary to resort to an operation earlier than otherwise, for the prospect of success by taxis in such cases is small.

Complete anesthesia is undoubtedly beneficial in relaxing the system, when there is no inflammatory action. But when

the pulse is frequent, hard and wiry, with evident signs of active inflammation by whatever manner caused, the tincture of veratrum viride given in full doses, is without doubt a remedy of great value, with it we can control the circulation and completely relax the system, consequently prevent or relieve the inflammatory condition, and bring the parts into the best possible state for reduction. I have never had occasion to try the veratrum in cases of this kind, but from its *modus operandi*, I believe that we can accomplish with it, all, or more than we can by bleeding, emetic tartar, or tobacco injection, and the system will be left in a much better condition when the effects of the remedy pass off, than it would be after using the remedies above named.

Opium or morphine in full doses, in conjunction with, or following the administration of the tincture of veratrum viride, is without doubt a valuable remedy to allay pain and irritation and restore the circulation to its normal standard.

When the system is properly prepared for reduction, we should lose no time in making judicious taxis, according to the indications in the particular case, we should always be sure that we are making pressure in the right direction, and that we do not injure the parts, by continuing our efforts too long without intermission. If proper treatment has not been neglected until organic lesion has commenced, reduction can generally be accomplished. Though there are cases which cannot be reduced without an operation, by any art or skill, even when there are no adhesions. A case of the kind I once witnessed, and will here relate it.

The patient, a man about sixty-five years old, of German descent, had been troubled with a large scrotal hernia for more than twenty years, little or no attention was paid to it, generally it would come down during the day and return at night; finally it remained in the scrotum most of the time. After a while it began to be painful and the patient tried numerous times to reduce it, but failed; he then sent for his son, who was a well educated physician, and he made judicious efforts to return it at different times, for two or three days, but did not succeed, and as inflammatory symptoms began to super-

vene, he sent for me to operate. I found a scrotal hernia on the right side, as large or larger than my fist, it was not very tender on pressure and the case was quite chronic, and as the constitutional symptoms were not urgent, I proposed a trial for reduction before operating; the doctor thought it useless, but consented that I should make a trial. My efforts at reduction being unsuccessful, we proceeded to operate, by making a longitudinal incision through the integuments the length of the tumor. I then carefully dissected down to the sac and divided the stricture exterior to it, and made efforts for reduction without opening it, but did not succeed; upon laying open the sac, I found a number of coils of the intestines protruding which were a good deal congested, though there were no adhesions or signs of gangrene, but they were much distended with gas and their contents. The coils of intestine were so twisted and tangled at the neck of the tumor, and the parts were so swollen, that it was very difficult to return them, even when we could see just how to manipulate. It was only with great care and perseverance that we accomplished the reduction, although the opening was large. In this case the strangulation was occasioned principally, if not entirely, by the twisting of the neck of the hernia upon itself, perhaps caused, or at least made worse, by the long continued efforts at reduction.

The patient was comfortable after the operation, the wound healed kindly, and the operation was successful.

We learn by this case that hernia is not always reducible without an operation, when the opening is large and there are no adhesions, also the necessity of being guarded in our prognosis in all cases, for in fact we are never sure of reduction, until it is accomplished.

Should the taxis succeed, the patient ought to remain in a recumbent position and be kept perfectly quiet until all inflammatory symptoms have subsided, and a truss or bandage should be properly applied to prevent a return of the difficulty. The bowels should not be disturbed by cathartics for a number of hours after reduction, for that portion included in the stricture usually remains partially paralyzed for some time after it has been returned, impairing the peristaltic motion, so

that the contents of the bowels above might be arrested at that point, and produce inflammation. When the taxis with all our auxiliary means have been fairly tried without success, we should proceed unhesitatingly to operate immediately, and not defer, and hope against reason and common sense, until the time for a successful operation has passed. Surgeons generally agree that error is more frequent by delay, than precipitancy, however that may be, it is certain that many persons lose their lives by strangulated hernia, that in all probability might have been saved by a timely operation.

Occasionally we are not called to see cases of strangulated hernia until the time for any attempt at reduction has passed, and gangrene sloughing, or other organic lesion has already taken place. What are we to do in such cases?

I would say by all means operate, unless the patient is in the last stages of collapse, for without an operation death will surely be the result, and by it we may perhaps prolong life for a short time, with the possibility of making a permanent cure, especially in chronic cases.

In illustration of the recuperative powers of nature, when properly assisted, and to show the propriety of operating in dubious cases of strangulated hernia, I will read the notes of an interesting case which occurred in my practice a number of years since, as it has never been published.

Mrs. Shoub, a German lady, about 60 years old, of a bilious and nervous temperament, with a good constitution, had been afflicted with femoral hernia for about fifteen years, but had never suffered much inconvenience from it until about a week before I saw her, which was December 28th, 1841.

For the previous week she had been treated by a homœopathist, who not understanding her case, tried to move her bowels by little pills, and not succeeding, gave a full dose of calomel and jalap, which of course only added to her suffering, without producing the desired effect.

Upon examination I found a tumor in the left groin about the size of a hens egg, colour natural, but quite tender on pressure, could feel indistinct fluctuation. I made no effort

to reduce it, for the reason that it had not been returned for the past year, and fearing from the constitutional symptoms that much pressure might rupture the protruding intestine. Her tongue was dry and red, pulse 130 small and weak, extremities cold and clammy, nausea with occasional efforts to vomit, urine dark and small in quantity, bowels somewhat disturbed and very tender on pressure, particularly in the iliac region; finally she had every sign of gangrene, or sloughing of the hernia.

It was then about 2 o'clock in the morning, and as I resided about 6 miles from the patient, I prescribed a full dose of morphine to be repeated in 3 or 4 hours and left her, stating to her husband and friends the nature of her case, that nothing but an operation would save her, and I feared it too late even for that to be successful, but told them if she was no worse by day light, that I would operate, if they wished me to.

I was informed early in the morning, that she was better, and requested to see her and operate if necessary. I immediately left, taking with me my partner Dr. Warner, and invited Dr. Armstrong, whose residence was on our way to assist us. We carefully examined the patient, and found no material alteration in her condition since I left her. I again stated to the patient, and her husband, the probable result of an operation, viz: that she might die in spite of the operation, {and if she did survive it and recover, the contents of the bowels might pass out of the wound, and that she would then have to suffer the terrible affliction of an artificial anus, but that death in a short time would surely be the result, without it. Notwithstanding our unfavorable prognosis, they consented to the operation.

After placing the patient in a proper position, and getting in readiness, I commenced the operation, by making a longitudinal incision through the integuments about 4 inches long, then carefully dissected down to the sac, which was thickened and contained about 2 ounces of dark colored serum. The hernia consisted of a portion of the small intestine, protruding about an inch and a half through the opening. It was of a very dark purple color, and appeared to be thickened and softened, with strong adhesions of long standing.

I carefully introduced the point of my finger on which I guided my history and divided the strictures, and the severe pain was at once relieved.

We made no attempt to return the intestine but drew the edges of the wound together partially, though not so close, as to prevent the passage outwards of the forces should the intestine slough which we were confident it would do in a short time. The patient was much relived by the operation, but then even evident signs of peritonitis still remaining, indicating alterative doses of calomel combined with opium, which were given, with the application of mercurial ointment externally. The next day, 24 hours after the operation, I saw her again, and just before my arrival the protruding portion of intestine gave way, and the contents of the bowels above passed freely through the opening, giving great relief to the patient, pulse 120, tongue more moist, bowels less tender; continued nearly the same treatment for 3 or 4 days, when a slight mercurial impression was obtained, and the inflammatory symptoms pretty much subsided. I then made a thorough examination of the parts, and found that the protruding intestine had entirely sloughed away, that the intestines were firmly agglutinated together and to the walls of the abdomen, completely preventing the faecal matter from passing into the peritoneal cavity, I could see the contents of the bowels above passing out of the intestine, I finally discovered another opening into the lower portion. I then drew the wound together closely with adhesive straps, in hopes by doing so, to get a passage through the entire intestinal canal, but left directions to remove the straps, and let the accumulations pass out, should there be much pain and pressure. The plasters had to be removed once only, and in the course of two or three weeks from the time of the operation, the passage was completely established without any obstruction.

We then carefully pared the edges of the wound, and brought them together and confined them with sutures and adhesive plaster, giving opiates at the same time, to keep the bowels quiet, thereby preventing accumulations from inter-

fering with the healing process. Nothing passed from the wound, after it was brought together, and in 3 or 4 days it was entirely sound, and she recovered rapidly without further treatment.

I saw the patient about ten years afterwards, her health had been good ever since the operation, she had never had any soreness or difficulty with the wound, or taken a dose of medicine, she was then nearly 70 years old.

The happy result of the above case, was quite unexpected, after I found that the adhesion prevented the contents of the bowels from passing into the peritoneal cavity, my highest aim was to prolong the life of the patient by an artificial anus. I might even say that after the passage was fully established, and the wound completely healed, I did not expect the cure would be permanent, for I still feared that the fæces would collect in the space intervening between the upper and lower portions of the intestines, producing pain, irritation, and ulceration, forming an abscess consequently establishing a permanent opening.

I have said nothing, as you will perceive respecting the manner of proceeding in the reduction of the different varieties of strangulated hernia, or on the various modes of operating in particular cases, for it was not my intention, my principle object being to show the necessity of proceeding with energy, carefully watching the patient, so as to be in readiness to take the advantage of the best opportunity for reduction, and then should our efforts be unavailing, to be prepared to operate in time to save the patient.

CASE—*Illustrating Evil effects of Veratrum Viride.* By E. S. McINTIRE, *Dallas City, Ills.*

On the 31st of January last, Dr. T. C. Patterson and the writer, were requested by Dr. Newton of this place, to see his child Hattie, aged three years; we found her suffering from active inflammation of the parenchyma of the right lung; pulse 120, countenance flushed, breathing not much accelerated.

The doctor has been administering Syr. Scil. Com. sufficient to produce slight emesis, and as he said, improve the expectoration; we continued the syrup with the following:

R Hyd. Chlo. Mit. gr. X.

Div. Chart, No. V. S. One every two hours.

Feb. 1st. No improvement, bowels more freely during the night; pulse 130 full; cough dry and annoying; ordered the following:

R Tinc. Verat. Viride,

Syr. Scil. aa ʒ j.

Mix. S. Begin with two drops every three hours, increase one drop each dose.

Feb. 2nd. Pulse down to 70, vomiting had taken place before daylight this morning, countenance pale, pupils dilated, with the most alarming dyspnea, gave brandy with

R Pulv. Doveri,

Quinine Sulph. aa. gr. i.

to be given every two hours.

Afternoon. Dyspnea much relieved, arterial excitement appearing again, resumed again the Veratrum Viride as before.

Feb. 3d. The alarming respiration of the day before, again returned as soon as the characteristic effects of the Veratrum were manifest, and on its discontinuance was again left in good order. The case was further treated without the use of the Veratrum, and without any return of dyspnea.

Dr. A. Hard, of Aurora, in the "Report on the Medicinal Uses of Veratrum Viride" to the State Medical Society at its meeting 1860, says: "Veratrum promotes the secretions from the skin and mucous membranes, and from this cause emetic doses may be dangerous, particularly to young children. The secretion from the bronchial mucous membrane being so great as to produce suffocation."

On this principle we account for the alarming symptoms in the case reported here, and caution all persons to observe the working of this potent, though excellent, remedial agent, especially in its administration to those of tender years.

DALLAS CITY, *March 12th*, 1861.

CLINICAL LECTURE IN MERCY HOSPITAL,

APRIL 2, 1861,

ON CHRONIC GASTRITIS, POST-MORTEM APPEARANCE, INFLAMMATION OF THE
KIDNEYS, ETC.

By N. S. DAVIS, M. D., Prof. of Clinical Med., Etc.

GENTLEMEN:—At the last clinic hour, your attention was occupied chiefly with a case of chronic inflammation of the mucous membrane of the stomach, coupled with indications of incipient tuberculosis. We then not only stated the symptoms of the disease as illustrated in the patient brought before you, but we alluded also, briefly, to the diagnosis between it and the different varieties of cancer on the one hand, and mere functional derangement of the stomach, on the other. We reminded you that chronic gastritis is generally characterized by a distinct burning, smarting pain, increased by food; frequently the rejection of the latter by vomiting, in a sour or acrid condition, or mixed with mucous; acceleration of the pulse; some tenderness of the epigastrium; the tongue red, sometimes smooth and glossy on its surface, at others fissured and tender; the bowels generally inactive though sometimes relaxed, with aphthous sores in the mouth. The urine is in most cases scanty and high colored, and the emaciation progressive. We reminded you that these symptoms differed from those of simple functional derangement of the stomach in several respects. They are more constant or uniform from day to day, while functional derangement is seldom accompanied by either redness of the tongue, acceleration of the pulse, or any considerable emaciation; and if tenderness of the epigastrium exists, it is only for a day at a time, while the distress from food is rather a load or weight with gaseous eructations, instead of burning, smarting and vomiting, as in inflammation. The differential diagnosis between chronic inflammation of the stomach and cancer was admitted to be more obscure and difficult to define; so difficult indeed that the experienced are sometimes left in

doubt. We reminded you, however, that the symptoms of cancer usually commence much more gradually and obscurely than those of chronic inflammation.

There is for a long time less alteration of the pulse, less redness of the tongue, less thirst, while the emaciation is accompanied by that mixture of the sallow and anæmic hue of the skin peculiar to the cancer cachexia; and the abdomen is almost constantly sunken or empty, and the bowels costive. We have briefly recalled these symptoms, which were dwelt upon much more minutely in the preceding lecture, for the purpose of introducing to your notice some pathological specimens obtained by a recent post-mortem examination. We were called directly from the clinic, to which we have alluded, to the bed-side of a patient whom we found dying. He had the appearance of one decidedly anæmic, but was only moderately emaciated, with some anasarcaous swelling of the extremities.

His pulse was feeble and thread-like, extremities cold, breathing oppressed, in fact he seemed apparently in articulo mortis.

From his wife and friends we learned that about one year since he had an attack of fever, and during his treatment, he was severely salivated with mercurials. His general health had not been good since that time. He had been constantly more or less anæmic and troubled with indigestion. Still he had continued to attend to his ordinary duties until about six weeks since, when his food began to give him more distress, and much of it was rejected by vomiting. His strength, of course, rapidly failed, and during the last three weeks he retained neither food nor drink. He had some pains in his back and head, and œdema of the extremities. The condition of the urine could not be ascertained as no attention had been paid to that subject. The medical attendant, who was not a regular member of the profession, had pronounced the disease to be *cancer* of the stomach. But its evident beginning after the attack of fever and salivation, the persistent and active vomiting during the last three weeks, together with the œdema of the extremities and paroxysms of headache, led us

to doubt the existence of cancer, and to express the opinion that the disease was chronic gastritis, complicated with some morbid condition of the kidneys. In about an hour after this visit the patient died, and the next day we were requested to make a post-mortem examination. We complied with this request, assisted by Dr. M. O. Heydock of this city. The cavity of the abdomen was opened in the usual manner, and its viscera carefully examined. The liver was perfectly natural in size, color and structure, and the gall-bladder was moderately full of yellow bile.

The spleen was natural in color, but about one third larger than the normal size, unusually firm and dense in its structure, and on its outer or costal surface there was a spot about one inch in diameter, where, on cutting into it, the investing membrane was found to contain a true bony deposit, so firm as to resist the scalpel. Here is a portion of that part of the spleen, and by passing it from one to the other, each of you can see the change of structure, and you will observe also that the hard or bony deposit is limited strictly to the surface. The whole exterior of the intestines and mesentery appeared healthy. The only evidences of disease found in these organs were in the mucous membrane of the stomach, which is here exhibited for your examination. That part lining the lesser curvature of the stomach is intensely red, with here and there a dark spot, moderately thickened; and on close examination two or three spots will be seen abraded or deprived of epithelium. An unnatural degree of redness is also seen over that part lining the left portion and larger curvature of the stomach, but less than in the part just described.

As we approach the pylorus the membrane appears more natural, and the pylorus itself is perfectly healthy.

Thus, all the morbid appearances in the stomach are such as indicate the existence of simple chronic or sub-acute inflammation of the mucous membrane, without the least vestige of malignant or cancerous disease. The bladder was found moderately distended with urine, and the left kidney entirely natural. On lifting the right kidney from its place, it was found slightly larger and a darker red than the left; and on

laying it open, its whole texture was intensely injected with blood, forming a strong contrast when compared with the other. The specimen is here before you, and though faded some by maceration during the last forty-eight hours, yet the morbid redness is still easily recognized. The further progress of the post-mortem revealed no other evidences of disease. It is thus seen that the opinion expressed by the attending physician, that the patient was laboring under cancer of the stomach, was entirely erroneous.

The morbid condition of the spleen had undoubtedly existed a considerable length of time; probably since the attack of fever one year since. As the function of the spleen evidently exerts some influence, either direct or indirect, over the formation of red-corpuscles of the blood, its morbid condition might explain the anæmic appearance exhibited by the patient during the last six or eight months. This was also accompanied by sufficient gastric derangement to occasion imperfect and sometimes painful digestion. These embarrassments, however, were not sufficient to prevent him from attending to his duties in an active out-door occupation until four or five weeks since, when the active and persistent vomiting commenced and continued until death. This symptom doubtless marked the commencement of the inflammation which you have seen in the mucous membrane of the stomach, and the parenchyma of the right kidney. Whether the inflammation in these localities commenced simultaneously from the same general causes or not, cannot be determined with certainty by the post-mortem appearances. But I wish to remind you that there is a close relation in many cases between a morbid condition of the kidneys and gastric irritation. A case came under our care a year or two since, in which the urinary secretion was very scanty, amounting to not more than four ounces in the twenty-four hours, and highly albuminous, with general anasarca, and a profuse watery diarrhoea. These symptoms had supervened during the period of convalescence from an attack of remittent fever.

Fearing the occurrence of extreme exhaustion from the continuance of diarrhoea, remedies were administered for the

purpose of restraining it, and at the same time favoring the increased secretion of urine. But it was soon found that whenever the intestinal discharges were restrained for twenty-four hours, either active vomiting ensued or symptoms of approaching coma. This led to the suspicion that the diarrhoea was purely vicarious or the result of nœmic irritation; and on applying the tests urea was readily detected in the intestinal discharges. The patient ultimately recovered under the influence of treatment for inflammatory congestion of the kidneys.

If you make the necessary inquiries you will find many cases in practice, illustrating the effects of urinary disorder on the gastric and cerebral functions. It is now well known that a large proportion of the convulsive affections, not only of puerperal women, but of children also, arise from the retention of urea in the blood.

We have found many cases of that distressing affection called "sick-headache," which had recurred again and again for a long period of time, permanently relieved by establishing and maintaining a full healthy action of the kidneys. In the case immediately before us, whether the inflammation of the kidney preceded that of the stomach, or merely accompanied, there can be no doubt but that it contributed much to increase the gastric irritability and advance the patient towards a fatal result. Yet its existence appears not to have been suspected during life. Such cases should admonish you to acquire the habit of examining all patients carefully in reference to every important function, instead of allowing the attention to be wholly engrossed with the more prominent symptoms, as is too often the case.

We shall allow you to occupy the remainder of the present clinic hour in examining the physical signs of pneumonia complicating a case of extensive tuberculosis.

Selections.

INVERSION OF THE WOMB.

CASE REPORTED TO THE CHICAGO ACADEMY OF MED. SCIENCES, FEB. 1ST, 1881.

BY R. C. HAMILL, M. D.

We copy the following case from the *Chicago Medical Journal*, in connection with the foregoing extract from the proceedings of the New York State Medical Society, chiefly because it so completely refutes the views of Dr. Lee, in some respects, and sustains those fully set forth by us, in the January number of the EXAMINER.—[ED.]

Mrs. C——, an accomplished and intellectual lady, in her 26th year, was taken in labor with her first child, about 12 o'clock at night, Dec. 17th, 1860. She had suffered during her entire term of pregnancy from a highly exalted state of the brain and nervous system, amounting on many occasions to absolute mania. I found her perfectly calm when I was called in at 7 o'clock the following morning—her pulse a little accelerated—80 per minute. The pains were good, occurring once in five or six minutes. The os uteri was dilated to the size of a dime, yielding readily at each pain. Her bowels had been freely evacuated just before my entrance. There was nothing in her situation to mark her case as differing from an ordinary labor under favorable circumstances, except, that I thought the antero-posterior diameter of the pelvis was slightly below the average dimensions.

There was nothing that required my immediate presence, and I left the house until half-past nine. On my return the head was found fairly engaged in the superior strait—the vertex toward the left acetabulum. At 11 o'clock the head began to press upon the perineum, which was remarkably thick and unyielding, and carried the head back promptly as the uterine contraction subsided. This state of the labor continued for more than an hour, when, after a long continued expulsive effort, she complained of pain in the head, and immediately began to talk incoherently, repeating scraps of poetry, sing songs and hymns, which were uninterrupted by the most vig-

We saw her again at 6 in the evening. There had been some febrile excitement during the day which depended upon the secretion of milk. Her body and limbs were sponged with tincture of arnica, with evident relief to the muscular soreness and numbness. An emulsion of castor oil and turpentine, with an opiate was ordered at 8 P. M., to be repeated in the morning if her bowels were not moved.

21st.—Rested well, part of the night. Her bowels not moved; oil and turpentine mixture repeated, to be followed by an enema at 12 M. 6 P. M.—Bowels had been freely moved after the enema; passed urine without the aid of catheter; complained of burning pain in the urethra, which was considerably swollen; expressed herself as feeling very comfortable otherwise; pulse 100. Dr. Bevan discontinued his attention.

22d.—8 o'clock A. M.—Her mother and brother, who had been telegraphed from a distant city, arrived during the evening of yesterday, and her father late in the night. Their presence drew too largely upon her nervous system, and I found her this morning, to use her own words, "quite miserable." Had slept very little, and since 3 in the morning had suffered with pain in her back. Her tongue was slightly coated, but not dry; some headache; pulse 120; abundant secretion of milk; lochia natural in quality and quantity; free secretion of urine; the abdomen a little swollen, with some tenderness on pressure; a burning pain in the pelvis; no unusual heat of the vagina, except along the course of the urethra, which was swollen and painful. I ordered calomel X grs., Dover's Powder XV grs., to be divided into three powders—one every two hours. A fine cloth moistened with a solution of morphine was laid upon the orifice of the urethra, and effervescing powders were ordered *ad libitum*.

Her husband, again growing alarmed, desired counsel and proposed Dr. Byford, who was sent for and met me at 12 M. Symptoms the same as in the morning; pulse increased to 128 per minute; complained of a burning pain deep in the pelvis. The opinion of Dr. B. was, that inflammation of the womb was to be feared, and that active medication to control such tendency was clearly indicated, and suggested that she should be put upon the use of veratrum viride immediately in full doses; accordingly verat. virid $\bar{3}$ j, tinct. hyoscyamus $\bar{3}$ ij was ordered—one teaspoonfull every six hours; and he further suggested that one grain of sulph. quinine should be given every six hours, alternating the two prescriptions; and ungt. belladonna was applied to the urethra. Turpentine and

alcohol, had been applied to the abdomen in the morning and were continued.

23d.—Had rested better; very little pain anywhere; pulse 115. 12 M.—Met Dr. Byford at the bedside; pulse 110; general modification of all the symptoms; treatment continued, *veratrum viride* and *quinia* at increased intervals, once in eight hours each. Citrate of magnesia to move the bowels.

24th, 12 M.—We found her very comfortable, without pain anywhere; the bowels had been freely moved; pulse 80 and soft. Her case required little further treatment, and she is at this date, February 1st, 1861, enjoying uninterrupted health.

So much interest has been elicited on the subject of inversion of the uterus since the Fisher-Stone trial, that I have been induced to give a more minute history of this case and its attendant circumstances, than otherwise might have been deemed necessary. I have been practicing medicine for nearly 25 years, and have had a good proportion of obstetric services to perform during the greater portion of that time. This is the first and only case that has occurred in my hands, and it has induced me to modify my opinion in relation to the occurrence of that accident.

In this case the inversion could not have been prevented by any ordinary precaution—the eccentric state of the organ could not be discovered by any of the usual rules that govern the conduct of an accoucheur.

In the first place, we have an adhering placenta, large, filling the relaxed neck of the uterus; second, the walls of the body of the organ, weak and thin, at least on one side, with slight contraction: third, the fundus firmly contracted. With this condition of the parts, an expulsive effort could scarcely fail to carry the fundus through the unresisting body and neck, and eventuate in partial or complete inversion. Nothing but support from within, by the hand of the accoucheur, could have prevented, I am convinced, in this instance, the occurrence of this accident. Many of the cases attributed to unwarrantable traction upon the cord, and resulting to the serious prejudice of the attendant, may have depended upon the same, or a similar cause—the accoucheur as innocent of the result as the infant that has just been ushered into the world. The error consisting, not in the occurrence of the accident, but in the failure to recognize, and at the moment reposit the inverted organ.

EXTRACTS FROM THE PROCEEDINGS OF THE NEW YORK STATE
MEDICAL SOCIETY,Published in the *American Medical Times*,

DISCUSSION ON INVERSION OF THE UTERUS.

We quote the following discussion, partly for its intrinsic value, and partly for the purpose of correcting some errors of fact alluded to therein. For instance: the reader will see that Dr. C. A. Lee, in his remarks alludes to the case of Fisher vs. Stone, which was tried in this city, and assumes that the patient, Mrs. S., had "*oft-repeated hemorrhages during all that interval*," of thirty or forty days intervening between the confinement and the discovery of the inversion.

And on this assumption, he distinctly charges that Dr. Fisher "*was guilty of neglect to his patient in not making an examination sooner to find out the cause of the hemorrhage.*"

Dr. Lee not being present at the trial, and the testimony in relation to the facts of the case of Dr. Fisher having never been published, we are at a loss to know on what authority he states that "*oft-repeated hemorrhages*" occurred during all the thirty or forty days. We cannot help thinking that every rule of propriety, forbids the attempt to censure a physician publicly and in print, especially under circumstances when he has no possible chance to defend himself, except on reliable and well established evidence. But so far from the allegation that "*oft-repeated hemorrhages*" occurred during *all* the thirty or forty days spoken of, being an established fact; it was an allegation positively denied by unimpeached and unimpeachable testimony on the trial. Hence, we feel called upon to say, that the remarks of Dr. Lee, in the New York State Medical Society on this point, are not based on sufficient evidence, and are therefore unjust to an intelligent and honorable member of the profession.—[ED. EXAMINER.]

Dr. A. Van Dyck read a paper entitled "Inversion of the Uterus," which elicited the following discussion:

Dr. Quackenbush stated that a very interesting case of the

sort came up for trial in Chicago not long since ; the physician, Dr. Fisher, being charged with malpractice. It seemed that not until three weeks after the confinement was anything of the kind noticed, and the parts were not replaced until three or four months had elapsed. The jury came to the conclusion that the organ became gradually inverted, and after remaining in the vagina all that time, finally passed out. The case was decided against the physician, notwithstanding, it was proved that the vagina was at that time so far unoccupied as to allow the passage of a large syringe into it for the purpose of injection. The nurse also affirmed that the uterus was firmly contracted after delivery.

Dr. Thorne mentioned a case which occurred to him some years ago. He was consulted by a woman lately from England, who presented between her thighs a tumor covered with a cuticle, resembling the skin in appearance. She stated that she had been afflicted by its presence for a number of years, but desired treatment more particularly at that time in consequence of the presence of a troublesome ulceration upon its surface. After very careful examination the tumor was decided to be an inverted uterus. Dr. Blatchford also saw the case, and upon consultation it was deemed best to attempt a reduction, which was effected without much difficulty. In answer to Dr. Quackenbush he stated that there was some dimpling of the organ.

Dr. Quackenbush referred to a case of inversion seen by Dr. White, where, after an existence of thirteen years, reduction was effected. He thought that in all cases of inversion restitution took place at the os, and continued from below upwards, instead of by simple dimpling of the fundus.

Dr. Van Dyck thought that some distinction should be made between recent and old standing cases, inasmuch as in the latter instances it would be almost impossible to produce that dimpling. In his case he tried to shove up the organ with his whole hand, but could not succeed. He then lengthened out the finger, soon the dimpling came on, and the organ was replaced. In some of these he thought that dimpling was a matter of necessity.

Dr. Blatchford stated, that soon after seeing the case with Dr. Van Dyck, he dined with Dr. Wing, who stated that he had seen just such a case, and reduced it in the same way.

Dr. Quackenbush in answer to an inquiry from Dr. McNulty, stated that he did not believe inversion could take place unless the body of the uterus has been previously filled, either by a fetus or a tumor. The uterus in its normal state had too small an amount of muscular fibre to render any such

effect possible, and, besides, the cavity of the organ was so small that there was very little or nothing to be inverted.

Dr. McNulty asked Dr. Q. if he believed any predisposition ever existed in any given case, and whether inversion might not take place, independent of any mechanical cause?

Dr. Quackenbush.—I do not think that that question has been much studied; the impresson is, whenever we have these cases of inversion, and when we can't apply a better reason, that there is a predisposition. Authors state this to be a fact, but what they mean by it, it is hard to tell. My impression is that inversion takes place sometimes without any mechanical cause. It has been generally supposed that injudicious treatment could only produce it, yet we find such a state of things occurring occasionally in the practice of the most scientific obstetricians, when there has been no drawing upon the cord whatever, and sometimes in fact, before there has been any endeavor on the part of the obstetrician to remove the placenta at all. In some cases you draw very lightly upon the cord and the womb becomes inverted, while in others you may pull with a great deal of force without producing the accident. In order to explain this, it is necessary to assume that some pathological condition, which we call a predisposition, exists in one instance and not in another.

Dr. Van Dyck asked Dr. Q. if there was any such thing as a gradual inversion, remarking that such was the doctrine taught in the books.

Dr. Quackenbush said that a great deal was taught in the books which was absolutely wrong, and in the matter of inversion, this was especially the case. He maintained that in cases of inversion, the succession of events was generally so rapid, that it was impossible to form an idea exactly how it took place. He remarked that bookmakers were too apt to follow implicitly the assertions of those who had preceded them in the task, without stopping to inquire the foundation for such assertions.

Dr. Brinsmade asked Dr. Lee to favor the Society with a few remarks upon the subject under consideration, but there being little time left in the morning session, it was agreed to assign to Dr. Lee the first part of the afternoon session.

The Committee on Credentials made a partial report, after which, on motion of Dr. McNulty, the meeting adjourned until 3 $\frac{1}{4}$ P. M.

AFTERNOON SESSION.

The meeting was called to order by the President, Dr. Jones, when the minutes of the previous meeting were read by the Secretary, Dr. S. D. Willard, and approved.

Dr. C. A. Lee said:—I do not claim to know much more on this subject of inversion of the womb than the profession generally, and the reason why I have been called to make some remarks upon this occasion is, owing to the fact that a paper was published by me in the October number of the *American Journal of the Medical Sciences*. I was led to study the subject, as I was called upon to make a deposition in the Chicago case in which there were fifty questions put to me. I found quite a large number of cases scattered through the books; I collected about two hundred, and made an analysis of one hundred and forty-eight. I do not claim to know very much of the subject from practical experience. I presume there are physicians in this room who have been in midwifery practice all their lives, and yet have never met with a case. It is well known in the London and Dublin Lying-in Hospitals that out of 40,000 cases of delivery, not a single case of inversion has occurred. I infer from that fact, that this accident does not often occur in the practice of physicians well acquainted with the science of midwifery, and that it is due to carelessness and inattention on the part of the attendant: I will not say want of skill, because a sudden issue may take place and the womb become inverted before we suspect any danger. We know that this happened to Professor Dewees, and with that ingenuousness which was a characteristic of the man, he relates how, in attending a case, before he suspected that anything was going to happen, the placenta came down adherent to the fundus, that the womb was inverted, and then he goes on to describe how he replaced it. You will find that Dr. Ramsbotham also describes a case which occurred in his practice which he thought was owing to negligence on his part. There is a belief which is very prevalent in the profession, that when the womb is inverted and placenta adherent, it must make its appearance externally. This I believe to be a mistake; certainly after the placenta is separated there is no room in the vagina for the womb to remain without being visible externally. In a letter from Professor White, of Buffalo, which I have received within a few days, he describes a case where he found the uterus in this condition.

In regard to the manner in which this takes place, I consider it rather a matter of theory. No man has ever observed it, for if he had been watching for it, it would not have occurred. Some say it is due to irregular contraction; some say, with Dr. Quackenbush, that evolution commences first at the neck of the womb; others say that the fundus is dimpled and gradually projects downwards, until at length the womb takes the alarm and begins to expel the fundus exactly as it

would a foreign body. That I believe to be the way in which it generally happens. I don't believe in this evolution at the neck. To say that such a tissue can take on contraction with such a small amount of muscular fibres, so as to invert it, is absurd; however, it is a matter of pure theory. Not exactly all theory either, because you find in two cases which are quoted by Dr. Dewees in his midwifery, where the womb had been inverted, that the physicians replaced it, and suddenly as he withdrew the hand the fundus followed it down and came out externally. He then pushed the fundus up and tried to retain it there, but every time he withdrew his hand the womb came down. He thus observed that the process commenced at the fundus and not at the neck. Here, then, we have two or three actual observations to base against the theory advanced. I doubt very much whether it can be accomplished by irregular contraction. I believe that in order to invert the womb, the placenta should be adherent, the uterus relaxed, and that there should be a strong abdominal nismus, when the placenta will drag down the fundus.

Now, in regard to this case at Chicago. It is a remarkable fact that we have no instance of a medico-legal record of any such case. (The Dr. then read an abstract of the case as published.)

Now, gentlemen, in regard to the defence in this case, it was thought that the inversion took place gradually; that there was a slight dimpling of the fundus which slowly increased, and in the course of thirty or forty days the uterus turned it-self inside out. The inversion occurred rather suddenly. The physicians then made the examination for the first time after her delivery, notwithstanding, there had been oft repeated hemorrhages during all that interval. Dr. Potter was afterwards consulted, who did not give a very favorable opinion of the case. Dr. Fisher heard of it, and immediately commenced a suit for slander. Mr. Stone, the husband of the lady, employed two lawyers, who proposed that Dr. Fisher should leave the case in the hands of three medical gentlemen. This proposition was not acceded to; the suit was commenced; the damages were laid at \$20,000, and the case was decided against Dr. Fisher. I gave my deposition to the effect that it was not a case of gradual inversion, but that the occurrence took place at most the first or second day after delivery, and that the Doctor was guilty of neglect to his patient in not making an examination sooner to find out the cause of the hemorrhage.

In conclusion, I will allude to two or three results which I have deduced from the statistics. In regard to inversion of

the womb I have shown that in sixty-two cases where the cause was assigned, thirty-nine are stated to have occurred from pulling on the cord, and I believe with Dr. Lee, of London, that this is the most frequent cause of the difficulty, especially in case the placenta is adherent. In twenty cases out of one hundred and forty-eight, labor was natural and slow, but in the majority there were symptoms of uterine exhaustion. That is another of the circumstances which I believe favors inversion. The womb is like a wet rag, and falls downwards from the mere weight of the fundus, and not by contraction of the neck. Dr. Lee, of London, says that inversion is frequently, if not invariably owing to pulling of the cord before the uterus has had time to contract. Now you hear a great deal of spontaneous evolution, when it has occurred without interference on the part of the attendant, but this I believe is very seldom the case. I do not say that it is an impossibility; but when such a case turns out, you may depend upon one thing, that is, that it commences at the time of delivery. Nor is the inversion gradual; it probably happens the first day after delivery. This was in all probability the fact in the case reported this morning; the inverted womb remained in the vagina, which, having just previously passed a fetus, was ample enough to contain the displaced organ without having it appear externally. This point caused a great deal of discussion at Chicago, and it was contended by many, that because the uterus did not appear externally, therefore the inversion did not take place at the time of delivery. I will relate a case which occurred to me recently. I was called to a lady who had been out of health for twenty-five years, and during that time she consulted a dozen different physicians. Since the commencement of her illness she had been suffering from repeated hemorrhages, which left her in a very anæmic condition. At the time of her delivery, twenty five years ago, the midwife who attended her, used a good deal of force in taking away the afterbirth. I examined her at once, suspecting that something was the matter with her womb, either polypus or inversion. I passed my hand up and felt a body hanging down like a fibrous tumor attached to the fundus, but I did not make up my mind as to its precise character. On examining again, however, I ascertained that the womb was inverted. I wrote to Dr. White a history of the case, and asked his opinion, she being at the "change of life," whether he thought the hemorrhage would cease after that period. The Doctor thought that the flow would not be checked by delaying, and advised me to attempt a reduction. I, however, did not follow his advice. The "change of life"

brought with it a stoppage of the hemorrhage, and for the last two years the woman has enjoyed very good health. The anæmia was removed by diet. A very important inference can be drawn from this case in reference to the influence that may be exerted by the cessation of the menses. None of the physicians who had previously seen her, had made an examination to ascertain the source of the hemorrhage.

In the one hundred and forty-eight cases, the uterus was repositied in fifty-one, and three are recorded by Meigs as cases of spontaneous involution. I think Meigs made a mistake in the diagnosis; such mistakes have been made by as great men as he, by Baudelocque, Sir Charles Bell, Rigby and others. In most of the cases the placenta was separated before it was replaced. I will not detain you to speak as to whether the womb should be reduced with the placenta adherent or not; the course to be pursued must depend on circumstances. There is but one fact which I have proved, and which will, no doubt, be interesting, that is, that it is not a dangerous operation to remove the inverted uterus by ligature. I, myself, was certainly astonished to find how large a proportion of the cases recovered. In thirty-two cases, only four proved fatal. These are all well attested cases; the name of the author is given, and there can be no doubt as to the correctness of the diagnosis in each instance. The operation of excision is more dangerous than that of ligature. Out of fourteen cases in which this operation was performed, four died. In a case of long-standing, I think I should prefer the ligature to manipulation, that is to say, if the patient was past the child-bearing period.

Dr. Quackenbush.—In rising to reply to some of the remarks of Professor Lee, perhaps I should offer an apology to the Society for trespassing so often on its time and attention in the discussion of this, to me, highly interesting subject. And yet, when I remember that I occupied the floor in replying to certain interrogatories proposed to me, I am the more ready to believe that the Society will pardon me if I again express my views in elucidation of some of the points to which the Professor has alluded. The subject of Inversion of the Uterus has lately attracted considerable attention in this country and in England, and its treatment seems now to be generally well understood. The cause of the difficulty, however, is not so definitely settled, and the *manner* of its occurrences is enveloped in much doubt and obscurity. It has generally, I might say universally, been supposed that the uterus become inverted by a depression of its fundus, that at this point there is an indentation which becomes larger and

larger, and finally the whole organ turns inwards upon itself and becomes entirely inverted. This view is adopted by Professor Lee. I suggested, in a report read before this Society one year ago, another mode, namely, that the inversion of the organ commenced at the neck instead of the fundus—this the Professor characterizes as impossible; nay, as absurd! Upon this point, Mr. President, I take issue with my learned friend. Every gentleman present knows that if you place the hand on the abdomen of your patient shortly after the birth of the fetus and placenta, the fundus feels hard and firm; while, if an examination be made *per vaginam*, the neck will be found to be flaccid and relaxed, and you can hardly tell where the vagina terminates and where the womb commences; and let me inquire, is not this the very condition we would expect to find if the inversion commenced in the manner indicated? But that I may be better understood, and that I may the better maintain my position, allow me to explain more fully the manner in which I think it occurs. It is well known that there are two layers of fibres in the uterus, one the circular or horizontal, the other the longitudinal layer; the former encircling as a band the os and cervix uteri, while the latter extends from this band and passes over the fundus of the uterus. When labor commences and proceeds, both these layers contract, but after a time the circular fibres yield to the more powerful action of the longitudinal, the os uteri opens, and the vagina and uterus become one continued and regular canal. The organic contractility continues, and the organ is freed from the uterus which it contained. Another contractility now comes into play. This is the contractility of the tissue, a property by which the womb, after having been emptied, returns gradually to its former state, and thereby has its cavity nearly obliterated. Now, at this stage there may be irregularity of contraction. The circular fibres, constituting a sort of sphincter muscle of the womb, are relaxed and form no firm attachment for the longitudinal-fibres. The longitudinal fibres, which may represent so many columns resting on this circular band as a foundation, contract, and, having no support, they begin to yield from the bottom, evolution takes place, the neck doubles in upon itself and passes through the os, the body follows, and, finally, the fundus, dragged down upon the body, preserves the same course, and we now have a complete inversion; the fundus being the last portion inverted, instead of the first, as has been generally, or I may say, universally admitted.

Before leaving this point, I would state that I am not alone in my opinion in regard to this manner of evolution, for I find

that Dr. John Delamater, who has had a very extensive practice, entertains the same views, and has made them public in a letter, written in April last. Allow me to read one paragraph. "The thought that inversion may, though rarely, perhaps, commence at the neck of the uterus, rather than at the fundus, does not appear to me to have occurred to any one but myself, and yet it is so clear to me that it must sometimes be so, that I have been compelled to argue the point" at much length. Mr. President, this manner of inversion seems not only plausible but extremely probable. True, all authors who have treated the subject teach differently, but what is the reason? They have seldom, if ever, seen the accident; their attention has not been particularly drawn to it; and hence they have adopted this universal notion, which, in my opinion, is as erroneous as it is universal. If then this be the manner in which *inversio uteri* occurs, what is the cause of it? I consider it an irregularity of action, and by this term I do not mean an undue action of some of the fibres of the body and fundus, whereby a portion is drawn down or depressed, but a *want of correspondence* between the muscular action of the neck and the body of the uterus, in which there is a complete atony of the muscular fibres of the neck, which is consequently soft and yielding, and a partial action of the fibres of the body and fundus, sufficiently strong to draw it down through the patulous mouth of the womb, but not active enough to detach the placenta, which we usually find adherent. Here, then, we have an atonic and patulous condition of the os and cervix uteri, affording no impediment to the protrusion of the body and fundus, which is drawn down by the slight muscular contractions, by the traction on the cord, by the weight itself of the fundus with the placenta attached, or perhaps pushed down by the superincumbent mass of intestines, aided by the contraction of the abdominal muscles. I am led to this conclusion by the fact that in numerous cases of this character the placenta remains attached to the uterus, not only after it is inverted, but even when it has protruded through the vulva, which would not be the case if the action had been excessive, for the contractions, violent enough to produce this inverted condition of the organ, would certainly be sufficiently powerful to detach the placenta.

There are other points, Mr. President, which I would be pleased to discuss, as the subject is full of interest, but I do not feel at liberty to take up any more of the time and the attention of the Society at this session.

On motion, the meeting adjourned until 10 A. M. on Wednesday morning.

SOME OBSERVATIONS

ON THE TREATMENT OF THE

NARROW AND IRRITABLE STRICTURE OF THE URETHRA.

By D. D. SLADE, M. D., one of the Surgeons of the Boston Dispensary.

I propose to offer to the Society some practical observations upon the introduction of instruments in cases of narrow and irritable stricture of the urethra, more particularly for the purpose of relieving retention of urine. Much as has been written and spoken upon this subject, it is one, the important practical bearing of which will admit of its being frequently brought before us; for in our community especially, every medical man is liable to be called upon, at a moment's notice, to afford relief in the crisis of retention. If I was asked what common operation in surgery required the most tact, careful manipulation, and, above all, gentleness and patience, I should unhesitatingly say catheterism. Not but that any man may succeed, with more or less adroitness, in introducing a catheter into the bladder, provided the parts are in a perfectly normal condition; but let him meet with any obstruction, then his attempts may be completely foiled, unless by experience and constant practice he shall be prepared to overcome them.

It is a well-established rule at the present day, or at least it ought to be, that puncture of the bladder is never necessary, the cases of failure to arrive at the bladder through the natural passage, by well-directed and skillful manipulations, being so extremely rare. To be sure, puncture of the bladder is an operation which is constantly performed in Hospitals and elsewhere, but had these very cases fallen into skilful hands at the commencement of the retention, or had more patience and perseverance been practiced by the hospital surgeons themselves, no such extremity would have been resorted to, excepting under extremely rare circumstances. Prof. Syme, of Edinburgh, long ago publicly taught that there are *no* strictures capable of allowing the passage of urine, even in drops, which cannot be permeated by skilfully-directed efforts. Civiale, in his admirable cliniques, and in his works, assures us that puncture of the bladder is never necessary. Such, in fact, is the opinion of the best surgical authority at the present day.

In my own practice, I have been called to several cases of retention of urine where the method of treatment of which I

am about to speak, pursued with gentleness and perseverance, alone saved the patients from having the bladder punctured, that operation, in one case at least, having been determined upon by the attending physician.

Let us suppose, then, that we are called to treat a case of narrow, irritable stricture, where retention of urine has not actually taken place, but where, in fear of such a result, attempts have been made to pass the catheter without success. In such a case, we must have recourse at once to general treatment. Rest in bed, warm baths, laxatives, strict attention to diet, opiate enemata, and, above all, care not to introduce any instrument into the urethra, will be found soon to have their marked beneficial effects; the immediate tendency to retention will disappear, and by following up this plan of treatment for a sufficient length of time, we shall place the organs in the best possible condition for undergoing the proper local treatment.

On the other hand, let us suppose that we are called upon after retention of urine has occurred, and where immediate relief must be given, and where attempts to reach the bladder may or may not have been made. In such a case, the passage through the stricture must necessarily be extremely small, and therefore in order to pass an instrument through it, we must select one of a corresponding size. For this purpose, I always use one of these delicate gum-elastic bougies, some of which, as you see, are scarcely larger than an ordinary knitting-needle.

I prefer that the patient should be in bed, that he should be warmly covered, and that he should be particularly protected against any sudden chill. A bougie is then to be selected, of a size corresponding to the size of the stream passed, as nearly as may be, or to the presumed diameter of the constricted passage; this is to be carefully lubricated with lard, cold cream, cerate, or some other equally tenacious substance, which is greatly to be preferred to the olive oil so commonly in use. Thus prepared, the instrument is to be carried carefully down to the seat of the stricture, and, if possible, pushed on into it, the entrance of its extremity being at once known by the peculiar manner in which it is grasped. After a few moments' delay, the bougie, in the great majority of cases, may be pushed on into the bladder. This, however, it must be borne in mind, is not always necessary; the mere presence of the instrument at the seat of the obstruction is generally sufficient to overcome the spasmodic action upon which the retention depends. The only difficulty in carrying these delicate instruments down to the stricture, is from their becoming

entangled in the various lacunæ, which, as is well known, are greatly enlarged in this disease. This difficulty, however, can be obviated by making traction upon the penis, so as to put the mucous membrane upon a stretch—or, in those cases which will admit of it, making use of the probe-pointed or olive-shaped bougie, of which I shall speak.

Where one or more false passages exist, by certain careful rotatory movements given to the instrument, we shall succeed in engaging the point within the stricture more speedily and safely with these delicate bougies, than by any other means. For this very purpose, M. Leroy made use of gum-elastic bougies which were bent in the form of a cork-screw, and which he often found extremely useful. Whatever form of instrument may be selected, I cannot too strongly enforce the necessity of using the greatest gentleness in its introduction. Anything like violence or even roughness, will not only give our patient great and unnecessary pain, but will be sure to be followed by an increased spasmodic action of the parts, which will defeat all our efforts. M. Civiale never could say too much on this point, which certainly is the basis of all success in catheterism.

Mr. Henry Thompson, of London, has recently suggested a method of protecting the mucous membrane from injury, and of rendering the introduction of small instruments more easy, particularly in these very cases of narrow stricture, which, on trial, will be found very useful. It consists in the simple method of applying the oil to the urethra itself, and very freely, rather than to the instrument. In order to effect this, he says, the nozzle of a common glass syringe, containing from four to six drachms of pure olive oil, should be introduced into the urethra as far as it will go, the external meatus being at the same time closed upon the nozzle by the forefinger and thumb of the left hand, so that none can escape. Gentle pressure being now made upon the piston-rod, the oil gradually finds its way down to the stricture; and if this be very narrow, the urethra in front of it slowly fills and becomes slightly distended; but as the piston continues to descend, the oil will gradually pass through the stricture and onward into the bladder, thoroughly lubricating every part of the canal. At the moment the oil passes through the stricture, the operator may sometimes distinctly perceive a slight, but very complete sensation communicated to the hand, of resistance overcome, and partial collapse of the previously distended urethra in front. The syringe is then to be removed, the finger and thumb still commanding the meatus of the urethra so that no oil escapes. The smallest catheter may now be introduced,

and made to traverse the urethra—at all events as far as the stricture—with very little or none of that difficulty arising from the catching of its point against the walls of the passage, so often experienced with very small instruments, and which renders so much care necessary in their employment. But what is more, when arrived at the stricture, the instrument, if adapted in size, will gradually pass through it; or, at least, the probability of its doing so is greatly increased. The narrowed channel has not only been thoroughly lubricated, but somewhat distended by the mechanical pressure of the column of oil which has passed through it; and this sometimes occurs to an extent which affords no inconsiderable amount of aid to the operator. Patients suffering from very irritable stricture have experienced so much less pain from the passage of a catheter after the injection of oil, that I have been repeatedly requested by them to employ it on subsequent occasions.

I alluded to the probe-pointed bougie as being extremely useful in many cases of stricture. The delicate extremity of the bougie being armed with this olive-shaped button, prevents it from being caught in the lacunæ as it is passed down. So, also, under certain circumstances, it will be found that this form of bougie can be more readily insinuated into and even passed through one of these narrow strictures than any other. By means of this, also, we can easily pass down ointments of various kinds.

Mr. Thompson has recently advocated also the use of a probe-pointed catheter. This instrument resembles in form, length and curve the ordinary catheter, and is made of silver. For the last two inches, however, it is perfectly solid, the extremity being in fact, a delicate metal probe. However small it may be necessary to have the instrument, so small can this probe-pointed extremity be made. The hollow part of the instrument commences at about two and a half inches from the point, and a small eye is placed on the inner aspect of the curve. From this part the instrument gradually increases in diameter. The whole is strengthened by a small steel rod or stylet, which accurately fills the interior, and to which the handle is affixed. The small eye can thus be kept clear of mucus and other matters. Mr. Thompson says: “when the stricture has been passed, considerable care is necessary in guiding onward the point through the canal behind, to prevent it becoming engaged in the enlarged lacunæ, which are commonly found in the dilated urethra behind an old stricture. This being safely accomplished, and the stylet removed, the urine will issue by drops only, on account of the small size of the eye, but nevertheless in a manner which will soon relieve

the patient, and which at once assures the surgeon of his complete success.

I cannot myself see any particular advantage to be derived from such an instrument as the one just described. After passing through the stricture, a considerable portion of the instrument must be pushed on into the bladder, beyond the seat of the difficulty, before any urine could pass through the eye, and that too without any certainty that irreparable mischief may not be done to the parts. The probe-pointed bougie seems to me to be a much safer instrument, and much better adapted, in the majority of cases, to the proper treatment of narrow stricture. After either form of bougie of which I have spoken has been passed, and the retention, if it exists, has been relieved, their use can be followed by larger instruments of the same material or the metallic ones may be substituted.

We may not always succeed in passing instruments of such tenuity at the first trial, but by affording the parts an opportunity to rest, and the spasmodic action to subside, especially in those cases where violent measures have been pursued, success will finally reward our efforts. The perfect relaxation of all spasmodic action under the use of anæsthetic agents, often renders their administration extremely useful in our treatment of retention from a contracted stricture. I am of opinion that this is not borne in mind so generally as it ought to be.

Temporary dilatation is, without doubt, the safest and surest method of treating organic stricture. Although slow, at the same time it can be easily managed and can be suspended at any moment, according as circumstances require, and, above all, does not prevent the patient from pursuing his usual avocation—and for the early treatment of narrow, irritable stricture, the use of gum-elastic or wax bougie is far preferable to metallic instruments. I have seen patients who have suffered so much from the passage of small metallic instruments, that they have not been willing to allow their farther use, but have made rapid progress under the employment of flexible instruments. When, however, the dilation has proceeded so far that a No. 5 or 6 bougie passes with ease, then these may be laid aside and metallic instruments substituted.

I cannot close my remarks better than by quoting the words of Mr. Solly. "There is another thing to be remembered in the treatment of stricture; never be ashamed to leave the bedside of a patient without succeeding in passing a bougie. I am told that a hospital surgeon, now deceased passed a sleepless night from vexation, if he failed to introduce an instrument into the bladder in presence of his pupils. Such a man must have made many a false passage. Every good surgeon

will fail occasionally in the introduction of a bougie, but no good surgeon ought to make a false passage, though a skilful surgeon will sometimes do it, when his temper or his pride rules his hand, instead of his reason and his conscience."

Boston Journal.

Book Notices.

TRANSACTIONS OF THE OHIO STATE MEDICAL SOCIETY; 1860.—Columbus: Follett, Foster & Co.

We are in receipt of this handsome octavo volume of nearly 300 pp., substantially bound in cloth. and, in typographical appearance, well worthy its valuable contents—the proceedings of the fifteenth annual meeting of the Ohio State Society, held at White Sulphur Springs, in June last.

Among the papers published, we notice an interesting report from the Committee on *Cannabis Indica*, by R. B. McMeans, M. D., of Sandusky.

The report of the Committee on Medical Literature—E. B. Stevens, M. D., Cincinnati—is peculiarly interesting and valuable, as furnishing a pretty thorough *resume* of the condition of this important interest. From it we glean, that of Medical journals, devoted to the interests of legitimate medicine, we have three weeklies, eighteen monthlies, eleven bi-monthlies, and three quarterlies; of which number—thirty-five in all—New York and Ohio, each, publish five; Pennsylvania and Georgia, each, four; Missouri, three; Louisiana, Illinois, Tennessee, California and Kentucky, each, two; and Massachusetts, North Carolina, South Carolina and Virginia, each, one. This does not include, of course, those publications devoted to specialities, as the *American Journal of Insanity*, that able quarterly,—nor the numerous magazines of pharmacy, chemistry, dental science, etc.; still less the "abundant parasitic growth of periodical literature engaged in promulgating the vagaries of eclecticism, homœopathy, phrenology, spiritualism and 'rational medicine,' a sort of illegitimate creation, voluminous and frothy."

The number of these regular publications has been remarkably uniform, we learn, for a series of years; though, of course, changes occur from time to time. Our writer appreciatingly places Medical Journalism *first*, "because of its pervading influence, because it demands the most prompt attention of medical men, and because it is the medium through which nearly everything new and valuable first comes before us."

The following assertions we are already prepared to endorse most fully: The medical journals of this country are a working, practical institution; poorly fed and poorly clothed, to be sure; but they never refuse their full share in the great mass of drudgery, which the machinery of our profession requires to be performed. * * * * The glory enjoyed by medical journalists, is, for the most part, regarded as ample compensation for the pains and penalties of mind, body and purse, which are incident to so honorable a position.

Dr. Wright's elaborate paper on the *Effects of Chloroform on the Intellectual Processes*, will well repay perusal; while Dr. Metz's report on *Diseases of the Eye*, and Dr. Gundry's report on *Insanity*, are papers of marked ability,—the latter particularly rich in valuable statistics, soundest philosophy, and enlightened study and research.

A TREATISE ON HUMAN PHYSIOLOGY.—Designed for the use of Students and practitioners of medicine. By JOHN C DALTON, Jr., M. D., Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York, etc, etc, etc. Second Edition, revised and enlarged. Two hundred and twenty-two Illustrations. pp. 690.

The rapid strides which Physiology is making, assisted by the microscope, vivisections, animal chemistry, etc., are strongly brought to mind by the advent of such works as this. For the past dozen years, Carpenter and his Continental cotemporaries have held almost undivided sway in this realm of Medical Science; and the text-book of the eminent English Physiologist has, hitherto, fully and worthily filled a prominent position in the libraries, alike of student and practitioner. But America, audacious and aggressive, has again planted her *Excelsior* standard on disputed ground, and this volume,

with its clear letter and artistic illustrations,—with its admirable, scholarly arrangement, nervous, terse and lucid style, with its vast and laborious experimentation, as fully sustains the claim to pre-eminence in this speciality, as Prof. Gross' *opus magnum* did in another branch, in giving to the world the "most elaborate and complete work on Surgery, ever published in any country." We believe we fully recognize the value of Draper and Dunglison, Carpenter and Kirke, and Todd and Bowman, and yet we unhesitatingly place Dalton at the head of the list, for qualities already enumerated.

We have spoken in the above as if this were a new work, and so, though a second edition only, it is in many respects, as instance: The introduction of an entire chapter on the *Special Senses*,—in the first edition treated only incidentally; new facts and views in regard to the physiology of the *Cranial Nerves*, with a complete re-arrangement of this chapter; new original experiments relating to the function of the *Cerebellum*, and the conclusions to which they lead; considerations respecting the general properties of *sensation* and *motion*, as resident in the nervous system; a new chapter on *Imbibition and Exhalation*, and the functions of the *Lymphatic system*, including the study of endosmosis and exosmosis, and their mode of action in the animal frame,—the experiments of Dutrochet, Chevreuil, Gosselin, Matteucci and others on this subject; the constitution and circulation of the lymph and chyle, a quantitative estimate of the entire processes of exudation and re-absorption taking place in the animal body—besides additions in various parts to the chapters on Secretion, Excretion, the Circulation, and the functions of the Digestive Apparatus. Finally, we have twenty-two new and original illustrations, of which number, five replace others in the former edition (by far the best illustrated work on the subject, even then,) which were considered imperfect, either in design or execution. In this important feature of illustration, Dalton's work is without a peer, either in adaptedness to the text, simplicity and graphicness of design, or elegance of artistic execution.

Philadelphia: Blanchard & Lea, 1861. Chicago: W. B. Keen.

A TREATISE ON FEVERS.—Selections from a course of Lectures on Fever, being part of a course of Theory and Practice of Medicine delivered by Robert D. Lyons, K.C.C., M.B.T.C.D., L.K.Q.C.P.I., L.R.C.S.I., M.R.I.A., Physician to Jervis Street Hospital, etc., etc., and late Pathologist-in-Chief to the British army in the Crimea. pp. 362.

A scholarly, well written work, by a new writer, and demanding a more discriminating review than we have had time to qualify for by a careful perusal. Of Sir Robert Lyons, knighted, we understand, for services during the memorable Crimean campaigns, we do not remember to have before heard, although his multiple titles, impressing almost an entire alphabet into initial service, would seem to indicate his position at home as by no means insignificant. We have glanced over his introductory chapters with no small pleasure at their fluency, ornate, yet simple style, and dignified and learned tone. The sections on *Typhoid Fever*, *Yellow Fever* and *Typhoid Fever* as it occurred in the Crimea, will possess increased interest at the present juncture, as the views and observations of one who occupied the distinguished position of Pathologist-in-Chief to the British army, during campaigns, in which 10,000 of its flower were carried off by diseases in seven months—an immense proportion of which was the result of fever and the sequelæ of fever. The opportunities for investigating the pathology of this class of diseases seem to have been very extensively and intelligently improved; and a large number of illustrative cases are cited, exhibiting the most marked forms of typhoid fever, the several conditions of the enteric lesions and the various morbid processes associated with it in its advanced stages,—*matériel* for which was abundantly supplied in the large hospitals before Sebastopol and at Scutari.

Philadelphia: Blanchard & Lea. Chicago: Wm. B. Keen.

REPORT ON MORBUS COXARIUS; or HIP DISEASE.—By Lewis A. Sayre, M. D., Resident Physician of the City of New York; Surgeon to Bellevue Hospital, &c., &c.

This is a monograph of 94 pages, reprinted from the Transactions of the American Medical Association for 1860. It is the Report that attracted more attention, and is of more practical value than any other presented to the Association during

its last annual meeting. After a brief description of the anatomy of the hip-joint, Dr. Sayre discusses the causes and pathology of hip disease, gives a detailed account of the symptoms in the several stages, accompanied by cuts for illustration; giving the treatment adapted to each stage of the disease, with a full account of the mechanical appliances necessary, and concludes with a summary of the cases thus far treated, with the results. To give any adequate idea of the author's views and method of treating the disease, would compel us to copy the greater part of the report itself. Its publication makes an era in the history and treatment of hip disease, and we advise every reader to obtain a copy of it, together with much other valuable matter, by sending *three* dollars to Dr. Casper Wistar, of Philadelphia, for the volume of Transactions of the American Medical Association, for 1860.

SUMMARY OF MEDICAL SCIENCE.—Edited by Walter S. Wells, M. D. Part I.
New York: Charles T. Evans, Publisher.

Already favorably known to the profession as the compiler of an "*Epitome of* BRAITHWAITE'S RETROSPECT," and the "*Compendium of* RANKING'S ABSTRACT," Dr. Wells has placed the medical world under more weighty obligations by this, his recent contribution to our current literature. The work, as its name indicates, is a *Summary* of the most valuable articles published in "Braithwaite's," "Ranking's," the London, Dublin, Edinburgh, French, German, and American Medical Journals of 1860, together with original contributions by leading men in their respective specialities. In its 300 pages, we have the very cream of the medical journalism of 1860, selected with enlightened judgment; properly arranged and classified, and furnishing, in itself, a complete digest of the improvements and status of Practical Medicine, Surgery, Midwifery, Toxicology, Chemistry and Materia Medica, for the past year; and so arranged in binding and paging as to facilitate the re-binding of each department separately, when the work becomes sufficiently voluminous.

The volumes are issued semi-annually, on 1st April and October, at \$1.25 per number, or \$2.00 per annum in advance. Address publisher as above.

A PAPER ON DIPHTHERIA.—Read before the New York Academy of Medicine, in June, 1861—By James Wynne, M. D., &c., &c.

This is a neatly executed monograph of 32 pages, published by Bailliere Brothers, 440 Broadway. It contains a very interesting history of Diphtheria, with a fair summary of the prevalent views concerning its causes, pathology and treatment. It is well worthy of perusal and preservation.

Editorial.

AN EXPLANATION.—The omission of the April number of the EXAMINER requires an explanation. The manuscript for the original department of that number was placed in the hands of the printer about the usual time, and the first "form" of eight pages was worked off in a few days. We had no intimation but that the work was going on as usual, and being fully occupied with other professional engagements, we did not stop to enquire until near the last of the month; when, much to our surprise, we found the war excitement had stopped all work in that printing establishment, and caused its doors to be closed—at least, for the present. Before we had time to effect an arrangement with any other publisher, we were called suddenly to Springfield to act on a Board of Medical Examiners, and detained there one week. Reaching home on the 2d of May, a satisfactory arrangement was immediately perfected with the present publishers, and the work pushed forward as rapidly as possible. But, inasmuch as the time for the April number had been entirely lost, we have thought it proper to date the present number for April and May, both; promising our readers that the deficiency of the April number shall be fully made up by improvements in the subsequent numbers of the present year.

PROSPECTS FOR THE FUTURE.—One of the principal objects that induced us to commence the publication of the CHICAGO MEDICAL EXAMINER, was to establish a Medical journal here,

which should not only constitute a medium through which the medical writers of the Northwest could communicate their thoughts and observations, but which should, also, faithfully reflect the doings of the Medical societies, colleges, hospitals and dispensaries of this city, as fully as the medical journals of New York and Philadelphia do, the doings of the various medical institutions of their respective cities. An early failure in the health of Dr. E. A. Steele, who was associated with us as Assistant Editor, has hitherto prevented us from carrying out our original design as perfectly as we had desired. From the present date, however, his place will be supplied by FRANK W. REILLY, M. D., a recent graduate,—energetic and industrious, a ready writer, an accurate reporter, and well versed in all the duties devolving on an assistant in editorial labors. With his aid, we hope to make such improvements in all departments of the EXAMINER as will be gratifying to its readers.

SURGEONS AND ASSISTANT SURGEONS IN THE ARMY.—For the information of that large class in the profession who are volunteering their services as surgeons, we would state, that the laws of this State provide for only *one* Surgeon and *one* Assistant Surgeon to each *regiment* of volunteers.

The six regiments first called into service from this State, in compliance with the requisition of the general government, are now organized and fully supplied with medical officers. A recent act of the Legislature provides for the immediate organization of ten additional regiments, to be completely organized, and drilled for thirty days, and held in readiness for any future demand that may be made, either by the State or national governments. Surgeons and Assistant Surgeons to these ten regiments are to be appointed solely by the Colonel of each regiment, and the law does *not* provide for an examination before such appointments, as was the case with the first six regiments. This is much to be regretted; for personal observation has fully satisfied us that only a small part of those who are proffering their professional services, have any adequate idea of the duties of a medical officer of the army. Many think of nothing but the ability to cut off

limbs and dress mangled wounds, forgetting, entirely, the fact that, in all armies, disease destroys ten for every one that falls on the field of battle. Whoever becomes attached to a regiment of volunteers as a medical officer, should be thoroughly awake to all those sanitary measures that are calculated to ward off disease, or mitigate its violence. The necessity of subjecting all candidates to a rigid examination, will be abundantly apparent by the results developed in the following report :

REPORT OF THE
BOARD OF MEDICAL EXAMINERS
TO THE LEGISLATURE.

The Board of Physicians and Surgeons appointed by the Legislature of the State of Illinois, to examine such candidates as might present themselves for the office of Surgeon or Assistant Surgeon in the six regiments of volunteers called into active service by the authority of this State, would respectfully report as follows, viz :

The members of the Board assembled at the State House, in Springfield, Ill., April 26th, 1861, at 9½ o'clock A. M.

Present—Drs. G. W. Stipp, of Bloomington; W. M. Chambers, of Charleston; N. S. Davis, of Chicago; and Charles Ryan, of Springfield. Absent—Dr. Carpenter, of St. Clair County.

A quorum being present, the Board was organized by the appointment of Dr. G. W. Stipp, Chairman, and Dr. N. S. Davis, Secretary. The following rules were then adopted for the government of the Board in the transaction of its business :

1st.—The Board shall hold three sessions daily, commencing at the hours of 8½ A. M., 2 P. M., and 8 P. M.

2d.—Each candidate for examination shall furnish satisfactory evidence that he has received the degree of *Doctor of Medicine* from a regular Medical College in good standing in the profession.

3d.—Each candidate shall furnish satisfactory evidence that he possesses a good moral character.

4th.—The examination of each candidate shall have special reference to the four following topics, viz: Surgical Anatomy, Practical and Operative Surgery, Practical Medicine, and Hygiene.

5th.—Immediately after the examination of each candidate the result of such examination shall be determined by ballot, without debate—and *two* negative votes shall be sufficient to reject the candidate.

The whole number of candidates whose names were presented to the Board and placed on file for examination was *fifty-two*; of whom fifteen failed to make their appearance before us.

Of the *thirty-seven* who were duly examined, *nine* were found qualified for the office of *Surgeon*, and were furnished with certificates accordingly, to-wit:

David Prince, M. D., of Jacksonville; Horace Wardner, M. D., of Chicago; Henry W. Davis, M. D., of Paris; S. T. Trowbridge, M. D., of Decatur; A. W. Heise, M. D., of Joliet; James H. Faris, M. D., of Danville; Christopher Goodbrake, M. D., of Clinton; Sanford Bell, M. D., of Springfield; and Dr. Evarts, of Quincy.

And *twenty-one* were furnished with certificates, as qualified for the office of *Assistant Surgeons*—to-wit:

D. W. Young, M. D., of Aurora; Samuel C. Plummer, M. D., of Rock Island; A. E. Goodwin, M. D., of Rockford; John L. Teed, M. D., of Mendota; B. F. Stephenson, M. D., of Petersburg; John M. Phipps, M. D., of Charleston; Wm. F. Cady, M. D., of Rock Island; Charles Davis, M. D., of Alton; James Hamilton, M. D., of Springfield; J. W. Van Valza, M. D., of Freeport; P. H. Bailhache, M. D., of Springfield; Conrad Dunreicher, M. D., of Chicago; Thos. Wilkins, M. D., of Vandalia; Daniel Stahl, M. D., of Quincy; J. R. Gore, M. D., of Chicago; Geo. H. Knapp, M. D., of Jerseyville; H. A. Buck, M. D., of Marengo; Samuel M. Hamilton, M. D., of Monmouth; E. A. Steele, M. D., of Chicago; Edgar Winchester, M. D., of Elgin; George W. Crossley, M. D., of Princeton.

Being fully aware that our citizen soldiery, summoned, as they have been, suddenly from their various avocations, to the hardships and exposures of the camp and the field, would be in far more danger from attacks of ordinary diseases, than from injuries on the field of battle, we have deemed it our duty, as Examiners, to inquire as carefully concerning the views and acquirements of each candidate in relation to the treatment of disease and such hygienic measures as aid in preserving health, as in relation to their surgical knowledge and skill. And though the very short time intervening between the passage of the law creating the board, and its meeting for business, may have prevented some members of the profession in the more distant parts of the State from appearing before it, yet we feel much pleasure in assuring you and the people of the whole State, that among those we have deemed it our duty to recommend as *Surgeons*, our patriotic volunteers will find as skillful Physicians and Surgeons, and as faithful and devoted friends as they could possibly desire. And though we have been less exacting in the standard of acquirements fixed for the office of *Assistant Surgeons*, yet we have intended to give certificates to such *only*, as would do ample credit to themselves, and full justice to those who might need their assistance. Deeming it necessary that a Surgeon or Assistant Surgeon in the army, should be thoroughly acquainted, not only with the nature and treatment of those diseases to which all armies on active duty are liable, but also with all those cases connected with personal habits, topographical conditions, and climatic changes, which tend to engender disease, we have been reluctantly constrained to withhold certificates of recommendation from some, who are justly regarded in civil life as good operative Surgeons and honorable Physicians.

In conclusion, we cannot too warmly commend the considerate care manifested by the Legislature, in the effort to secure for those of our fellow citizens, who have temporarily abandoned the arts of peace for the defense of our government and the integrity of our country, the most reliable Medical and Surgical aid that the State can afford.

We trust that the example now set, will be followed on all similar occasions, if the calamities of war should call for additional regiments, and consequently additional medical officers. All of which is respectfully submitted.

SPRINGFIELD, *May 1st*, 1861.

N. S. DAVIS,	} <i>Board of Examiners.</i>
GEO. W. STIPP,	
WM. M. CHAMBERS,	
CHARLES RYAN,	

APPOINTMENT.—Ralph N. Isham, M. D., Professor of Surgical Anatomy and Operations of Surgery in the Medical Department of Lind University, has received the appointment of Surgeon to the Marine Hospital in this city. Dr. Isham is a gentleman whose professional attainments, pleasing address, and brilliant style of operating, have won for him no mean reputation, both in the amphitheater and in private practice: and we congratulate him, not less than Uncle Sam, on the increased sphere of usefulness and experience this places at his disposal.

—Students of the Medical Department of Lind University have now the advantage of the wards of two of the most extensive Hospitals in the Northwest, in addition to a large Dispensary practice, at which clinics are given twice a week during the entire year. Cliniques at the Mercy Hospital, under the services of Professors Davis and Andrews, are given regularly four times per week, during the summer course.

OBITUARY.—The profession in the northwest has been called on to lament the loss of one of its most valuable members, in the death of DR. E. J. FOUNTAIN, of Davenport, Iowa, in the thirty-third year of his age. He was engaged at the time of his death, which took place on the 29th of March, in the prosecution of experiments on the chlorate of potassa—a subject which had engaged much of his attention, and on which he had written several very interesting papers. He was a frequent contributor to the current medical literature, a successful practitioner, an enthusiastic and self-sacrificing student, and occupied a place in the profession which will not be easily filled.

AMERICAN MEDICAL ASSOCIATION.—The annual meeting of this Association appointed to be held in the city of Chicago, on the first Tuesday in June next, is hereby postponed until the first Tuesday in June, 1862, on account of the extremely disturbed condition of the whole country.

CHICAGO, *May 1st*, 1861.

N. S. DAVIS;	} Committee of Arrangements.
J. W. FREER,	
E. ANDREWS,	
DE LASKIE MILLER,	
J. BLOODGOOD,	
THOS. BEVAN,	
H. W. JONES,	

Personally, it has been with extreme reluctance that we have assented to the above notice postponing the regular annual meeting of the American Medical Association. But such postponement having been unanimously advised by leading members of the profession, in all sections of the Union, we have felt constrained to yield to the sad necessities of the times. Having all our lives combatted *sectional* prejudices, and advocated a catholicity of sentiment which would embrace our whole country, not only in medicine, but also in religion, politics, and social life, we had fondly hoped to meet our professional brethren from the North, South, East and West, in the same fraternal spirit that has characterized the meetings in years gone by. But we must wait—and while we wait, pray, that before the first Tuesday in June, 1862, every part of our great country may be reposing peacefully under the folds of the old “Star Spangled Banner,” and contentedly enjoying the blessing of the mildest and most liberal government ever established among men.

BELLEVUE HOSPITAL COLLEGE.—The importance of clinical instruction, and the value of these bedside teachings, are being rapidly recognized and appreciated by the profession; and we hail the recent act of the New York Legislature, in chartering a new Medical School in connection with Bellevue Hospital, as another step in the right direction. Students will discriminate in favor of institutions, the precepts of whose lecture-rooms are emphasized by practice at the bed-side.

HOMŒOPATHY IN THE MICHIGAN UNIVERSITY.—The following letter fully explains itself, and our readers will be gratified by its perusal.—[*Ed. of Examiner.*]

UNIVERSITY OF MICHIGAN, }
April 19th, 1861. }

PROF. N. S. DAVIS, M. D.,

Dear Sir :—In your journal for March, which has just come to hand, the statement is made that you “learn from the *Detroit Free Press* that the Legislature of Michigan, during its recent session, passed a law, requiring the establishment of a chair of Homœopathy in the Medical Department of the State University, at Ann Arbor.”

I write to inform you that this is a mistake, entirely, and to request you, which you will, no doubt, be happy to do, to correct it. I am sorry to learn, as I do now for the first time, that the *Free Press* was led into such an error. It must have corrected it very soon, as it commented approvingly upon the action of the Legislature in *not* passing such an act.

The facts in this case are simply these :

The Homœopathic practitioners in the State, since their defeat a few years ago, in attempting to have their system taught in the University, have been putting forth every possible effort, as we have since learned, in a secret way, to secure the election of persons to the Legislature, favorable to that system, and its introduction into the University.

Among others they succeeded in getting into the Legislature and upon the Committee on Education, a man who now calls himself a Homœopathic physician, but who, not long since, was a professor in the Eclectic Medical College at Cincinnati. This man, aided by a very active *lobby* of Homœopathic physicians and others, by means of the grossest and most shameless misrepresentations, whispered quietly into the ear, and at last embodied in a report, made considerable headway with members.

A bill providing for the introduction of two Homœopathic professors into the University was introduced into the lower house, which, after discussion and the exposure by documentary evidence of many of the false statements made in the report by which the bill was attempted to be sustained, was *lost* for want of a sufficient number of votes.

The friends of the measure, abandoning the idea of mingling Homœopathic teaching with that of legitimate medicine in the same school, introduced another bill providing for the establishment of a *separate school* at any town in the State *other*

than *Ann Arbor*. This passed the lower house, but after discussion and a report thereon in the Senate, was lost in that body by a decisive vote. So all Homœopathic measures were defeated, instead of a law establishing a chair of Homœopathy in the Medical Department of the University being passed.

Your article very properly states that the Constitution of the State places the University entirely under the control of the Board of Regents, and that a few years ago, after thoroughly investigating the claims of Homœopathy to be represented in the University, they refused to recognize it.

By giving place to the above, you will do justice to the Legislature of Michigan, and to legitimate medicine, besides obliging much,

Your humble servant,

A. B. PALMER.

DEWITT COUNTY MEDICAL SOCIETY.—The society met in annual session at the office of Dr. Goodbrake in Clinton, on Tuesday, the 2d day of April. Dr. John H. Tyler in the chair.

The minutes of the previous meeting were read and approved.

On motion of Dr. Edmiston, Dr. E. W. Gideon was invited to participate in the proceedings of this meeting.

The following gentlemen were then elected officers for the ensuing year:

President—Dr. Z. H. Madden.

Vice-President—Dr. Thos. W. Davis.

Treasurer—Dr. T. K. Edmiston.

Secretary—Dr. C. Goodbrake.

Dr. J. H. Tyler, }
Dr. John Wright, } Censors.
J. C. Ross, }

Delegates to the Illinois State Medical Society—Dr. John Wright, Dr. B. S. Lewis, and Dr. Christopher Goodbrake. Alternates—Drs. Hunt, Adams, and Davis.

Delegates to the American Medical Association—Dr. John H. Tyler, and Dr. Z. H. Madden. Alternates—Drs. Edmiston and Richards.

The President elect then took the chair, and made a few very appropriate remarks.

Dr. J. H. Tyler, the retiring President, then delivered his

valedictory address; when on motion of Dr. Goodbrake, the thanks of the society were tendered to the Doctor, and a copy of his address requested for publication.

Dr. Tyler reported a case of Endo-Carditis.

Dr. Madden reported a case of Uterine Hemorrhage.

Drs. Edmiston, Adams and Davis, were appointed essayists for the next meeting.

Diphtheria was chosen as the subject for discussion at the next meeting of the society.

On motion of Dr. Wright, it was ordered that the proceedings of the meeting be published in the *Central Transcript*; also in the *Chicago Medical Journal*, and the *MEDICAL EXAMINER*.

On motion the society adjourned to meet in quarterly session, at Santa Anna, on the first Tuesday in July next.

C. GOODBRAKE, M. D., Secretary.

PERSONAL.—Prof. C. D. Meigs, for twenty years the most popular teacher in the United States, at the close of the recent session of the Jefferson Medical College, resigned his seat in the Faculty of that institution, to the great regret of his colleagues, the profession generally, and a host of alumni and pupils.

Prof. Meigs has been in active practice for upwards of fifty years, and a teacher for nearly half that period. As practitioner, lecturer and author, he has enjoyed a wider and more brilliant reputation, his classes have been larger, and his success greater than, perhaps, that of any other American physician—and, in a very great degree, this has been deservedly so.

He retires, we understand, to his country seat, Hamanassett, near Philadelphia, there to engage in literary and agricultural pursuits, and the composition of a long contemplated history of medicine. The kind wishes and warm sympathies of innumerable friends follow him in his retirement.

A suitable expression of sentiment was entered upon their record by the Faculty on receiving his resignation; and on commencement-day, the graduating class presented him with a portrait of himself, by Waugh.

—Dr. Wm. V. Keating, of Philadelphia, has been chosen to fill the chair of Obstetric Medicine thus vacated. Dr. K. is very highly spoken of by the *North American*, as an obstetric practitioner of enlarged experience, and of great readiness as a lucid and pleasant teacher. He was formerly connected, for a number of years, with the Philadelphia Medical Association, as lecturer on midwifery and diseases of women and children.

—The honorable post of Physician-Extraordinary to Queen Victoria, recently made vacant by the lamentable death of Dr. Baly, has been assigned to Dr. William Jenner, Physician to University College Hospital, and author of several works on fever, etc.

—Dr. Thomas Harris, at the time of his death the oldest Surgeon in the American Navy, died in Philadelphia, March 4th, of apoplexy. Dr. H. was a graduate of the University of Pennsylvania, in the days when there were giants—Rush, Dorsey, Wistar, Barton, Physick,—at its head, and had, for several years, been at the head of the Medical Bureau at Washington.

A BOARD OF MEDICAL EXAMINERS will convene at the Naval Hospital in New York, on the 1st prox., for the examination of applicants for admission into the Naval Medical Staff. Those gentlemen who so successfully lobbied against the appointment of an Examining Board, under the Ten Regiment Bill, might find it to their interest to protest against this also.

THE MANUSCRIPT of Prof. Andrew's Lecture on *Military Surgery* was handed in too late for the printers to assign it its proper position, under the head of "Original Contributions." We are happy, however, to be able to announce that this is only the first of a series on this engrossing topic, which will be given in our pages during the summer course of the Lind School.

OF 101 applicants for commissions as Surgeons and Assistant Surgeons examined by the New York Board, thirty-nine passed as Surgeons and thirty-seven as Surgeons' Mates.

A SUGGESTION.—Of the hundred and fifty or two hundred physicians in our own State, and about quadruple that number in the entire North-West, who have volunteered their professional services to the army, not over two out of five will probably be availably used in the camp or field. But we may suggest to the disappointed ones, that fully as much good may be done, and as much patriotism evinced, though in their own home spheres and plain citizens' garb, by quiet but active exertion in directing and stimulating the efforts of citizens to supply the troops with additional hospital conveniences and comforts. The proper Department will see to the furnishing of necessary medicines, etc.; but in the unavoidable confusion and hurry, attendant upon so great and sudden a revolution from a peace to a war establishment, many important details will be overlooked, and much will necessarily devolve upon private individuals. And the preparation of lint and bandages will *not* include all that will be found useful in this department.

Purulent, or Egyptian ophthalmia, is a disease among the most troublesome and common in armies, and the southern portion of this State is one of its favorite habitats. It is asserted that 30,000 cases of this disease occurred in the Prussian army in eight years, and that the Belgian army suffered still more from it. Wounds of the eye, and various other forms of ophthalmia, form also a large per cent. of the cases. *Green silk eye-shades*, as recommended by Col. Anderson, with elastic bands, will be found especially useful, and may be got up in considerable numbers.

Splints, of all sizes and shapes, may be prepared. *Field Stretchers*, formed like a hand-barrow, six and a half feet long, and thirty inches wide, with strong canvas bottoms, and projecting handles—can be made by any carpenter. *Saddler's Silk*, for ligatures and sutures; *pins* of various sizes; soft, clean *sponges* (there cannot be too many of these. The inoculation of the virus of erysipelas by indiscriminately dressing all patients with the same sponge, cannot be too sedulously guarded against.) *Towels*, both coarse and fine, as well for ordinary bathing purposes as for hospital use; *Cotton batting* for compresses, fracture-dressings, etc.; *thin, light flannel shirts*, long and loose, for the sick, with drawing-strings at the neck, instead of buttons; and shorter and more closely-fitting ones for the active soldiery; large-sized *list* or *cloth slip-pers*; *lime* and *lemon juice* in strong black bottles, tightly corked with practicable corks, *i. e.*, those not requiring a corkscrew to extract; *vaccine virus*, fresh and healthy, either in vials, dissolved in glycerine, or in the usual form, in wax,—for

the vaccination of the unprotected at discretion; *adhesive* and *isinglass plaster* may also be prepared, or purchased, and sent. *Cap-covers* of light, white cotton cloth, with capes falling down over the shoulders, will be very useful under the Southern sun. The *Havelock cover* is the best we have seen, and patterns of it may be obtained by writing to the Rev. Dr. Ryder, of St. Paul's Church, in this city, who will be happy to send them by mail to applicants. *Light Ambulances*, with two or three stretchers, mounted on springs and drawn by two horses, are quite serviceable on the field of battle, or in conveying the wounded and sick from outposts to the hospitals or heavy ambulances.

To the above, the physician of every village sending a company, might add such articles as he deemed serviceable, and set the ladies to work at once before their energies are completely exhausted scraping lint and rolling bandages—of which the venerable Dr. Mott says there have been enough prepared in New York city alone, to last a seven years' war. Such supplies, properly packed in strong tool-chests, and with a list of contents tacked to the inside of the lid, should be sent to the Surgeon of the regiment to which the company is attached. No fear but their contents will be acceptable.

Editorial Abstracts and Selections.

FROM A RECENT number of the *American Medical Times*, we learn that the Louisiana Legislature, through the influence of Dr. I. H. Stevens, has passed "an act relative to practitioners of medicine," by which it is made illegal for any one to practice in that State, without first making affidavit before a Justice of the Peace, said affidavit to be duly recorded by the Parish Recorder, that he has received the degree of Doctor of Medicine, from a regularly incorporated medical institution in America or Europe. Without such affidavit, no one may collect fees, but is liable to a penalty of \$20 for every violation of the act.

NITRIC ACID IN INTERMITTENT FEVER.—As early as 1854, the anti-periodic properties of nitric acid had been presented to the profession, by Dr. George Mendenhall in the *Western Lancet*; and even prior to that time had been availed of by Dr. E. S. Bailey, of Indiana. A recent article in the *Maryland and Virginia Medical Journal*, by Professor Wm. A. Hammond, late U. S. Surgeon at Ft. Riley, Kansas, is again

attracting the attention of the profession to its use for this purpose; and from it we condense the following: Forty-one cases, ten of the quotidian and thirty-one of the tertian type, form a table, the basis of a report made to the Surgeon-General. Of these, thirty-two were treated with nitric acid, and nine with quinine. Three cases, cured by nitric acid, had previously used quinine unsuccessfully; and two, cured by quinine, had been treated with nitric acid ineffectually, and in one other the acid was discontinued, on account of creating nausea, heart burn, etc. The average period of treatment was the same with each remedy—three days. The acid was given in doses of ten drops, three times per day, properly diluted with water; the quinine in eight grain doses, as often. Dr. Hammond says: Besides the fact that the nitric acid was equally successful with quinine in arresting the disease, the difference in the cost of the two articles is so greatly in favor of the former substance as to render it an object of importance to make its curative properties more widely known. —Since the foregoing cases were treated, I have frequently employed nitric acid in the treatment of intermittent fever, and have rarely been disappointed in my expectations of its curative action. In fact, in simple, uncomplicated intermittent, I seldom have occasion to use anything else. —In cases of enlargement of the spleen, consequent upon frequent attacks of the ague, the remedy in question, has, in my hands, proved very advantageous.

STEADINE.—The formula of a new and solid species of glycerine, soluble alike, to a certain extent, in oils and water, is thus given in the *London Jour. of Prac. Med. and Sur.* and *Pharm. Jour.* for Dec., 1860:

Lard,

Water,

āā.

℥iiss

Soda, deprived of its carbonic acid by lime, grs xv.

The soda is weighed and used dry. It should be melted in about four drachms of water; the lard is then gradually added alternately with the remaining water. The operation of this mixture is both swift and simple; in ten minutes four pounds of steadine may be prepared. This new adipose substance presents the appearance of a whitish, fatty compound, inodorous, insipid and intermediate between cerate and lard. It acquires firmness soon, and does not change as readily as lard under varying temperatures. It is claimed to be as serviceable as glycerine itself, for oils (medicated) and liniments; its ointments of metallic bases, oxides, sulphurets, iodides, salts, etc., remain unaltered; iodide of potassium pomade retains its whiteness and its iodine; insoluble powders

mix with it promptly and accurately; it combines readily with, and is a better solvent for vegetable powders; soluble salts and aqueous extracts are easily and intimately associated with it—and in short, it would seem to be a very valuable adjunct to pharmacy.

Won't some of our druggists prepare some and report?

TURPENTINE AS AN ANÆSTHETIC.—Dr. John Wilmhurst, of the Cunard ship *Marathon*, writes to the *London Lancet*, that he believes he has discovered a new anæsthetic and valuable anodyne, in the rectified oil of turpentine. Dr. W. was accidentally led to use the oil, instead of chloroform, in a severe case of facial neuralgia; it was exhibited by sprinkling a few drops on a handkerchief and applying to the nostrils; a few inhalations, produced a gentle sleep, from which the patient awoke, free from pain, headache, or other unpleasant symptoms. He has used it subsequently in one or two operations, in cramps, renal calculus, and convulsions. He describes its effects as allaying nervous irritation, spasm, and pain, without deranging the heart's action, and producing a calm anæsthetic sleep.

GERMAN PHYSICIANS are using powdered malt as a nutrient for children, in Germany, with considerable confidence and success. Dr. Zieruck, of Berlin, after a comparative analysis, claims that it approximates more closely to the qualities of good human milk, containing a larger amount of phosphates and nitrogenized elements, with more assimilable hyro-carbonic elements in it, than either East India arrow-root, or the *Racahout des Arabes*.

CHLORATE OF POTASH IN PHTHISIS.—In connection with our obituary notice of the late Dr. Fountain, we give the following succinct, comprehensive *résumé* of his last paper, in the *American Medical Monthly*, on the subject of the researches which engaged his attention at the time of his death. We give it, also, as presenting a fair sample of the valuable exhaustive brevity with which Dr. Wells condenses the very pith and marrow of lengthy Magazine articles into the pages of his *Summary of Medical Science*:

“*Phthisis—Chlorate of Potash.*—Adopting as his motto a statement of Liebig, that ‘oxygen is the leaden weight, or bent spring, which keeps the clock in motion; the inspirations being motions of the pendulum which regulate it,’ Dr. Fountain, of Iowa, looks upon the therapeutical indications in tuberculosis and kindred diseases in a simply chemical light, and the treatment is practically reduced to the question, *by what*

and in what manner can we best supply to the system the oxygen which is demanded for the proper performance of its functions, and thereby counteract the deleterious influences resulting from the *imperfect aeration of the blood?*

Dr. Fountain details three cases, which, from all rational and physical signs present, must evidently be considered as tubercular, in which the treatment with chlorate of potash was followed by very satisfactory results. In one case the patient took half an ounce of the chlorate of potash daily for six weeks, and two drachms each day for the succeeding four weeks, and occasionally thereafter in similar quantities. At the time of writing, the man was actively engaged in business, in good strength and flesh, and apparently perfectly well.

The author remarks that, 'though the treatment was purely experimental, it was not empirical; for the chlorate of potash was given on the assumed principle of *conveying oxygen to the blood*, by which a portion of the lungs was expected to be relieved of their task; the vital power of the blood increased, rendered more capable to perform its functions, and by which tubercular deposits might be arrested, and absorption of those already formed promoted.' The author deduces the following conclusions from the case detailed:

1. The chlorate of potash can be given in large doses every day for a long period, without injury.
2. It aids the function of respiration by supplying the blood with oxygen.
3. It operates as a natural *tonic alterative* and *blood depurant*, by increasing the supply of that element which is the most active agent of nature in the chemical changes which take place in the laboratory of the human system."

MAXIMS OF MILITARY SURGERY.—At a time when the entire press, professional and secular, is occupied with the one prevailing topic, and our periodical literature bristles with war-terms and phrases, as the country does with bayonets, we may be pardoned devoting considerable space to the subject of Military Surgery, and to any details of information incident to its study. The following extracts from Surgeon-General Stromeyer's *Maxims of Military Surgery*, originally published in two duodecimo volumes in 1858, and further amplified by an octavo supplement of pp. 150, at the commencement of the present year, will be found valuable as from the most recent contribution to the literature of this specialty. For them, as also for the comments included, we are indebted to the *N. A. Medico-Chirurgical Review*:

"The position of the military surgeon renders it scarcely possible to extend the science of war-surgery, unless he is placed in a hospital station. During a long peace, too, the impressions on the memory are weakened, and partially superseded by more recent occurrences. Dr. Stromeyer does ample justice to the ardent aspirations, so often cruelly disappointed, with which many young men enter the medical service of armies; but it is the duty of a philosopher and a man of business to contemplate things as they are, and to labor after, not what is best in the abstract, but what is obligatory and most useful in the existing state of things. The character of the experience gained, too, varies excessively; and examples are seen of army surgeons who have neglected to practice attendance on the wounded, and have first become familiar with bandaging on an actual field of battle.

In regard to their qualifications for this service, physicians fall into the following classes:—

1. Such as, by the variety of their talents, by their character, their experience in service, and their vigorous health, are competent to every duty.

2. Such as by their vigorous health, by peculiar adroitness in their intercourse with officers and men, are particularly qualified for service among marching troops.

3. Such as are peculiarly qualified for the treatment of in and out patients of hospitals.

4. Such as, from possessing the character of experienced surgeons and operators, are peculiarly qualified for the service of ambulances.

5. Those, whom a peculiar fitness for and inclination to administration, point out for the management of muster-rolls and accounts. A well organized army develops these men; but in a newly-raised body they belong to the exceptions.

6. Those, in fine, who should be got rid of as speedily as possible, as they do no particular honor to their station. On account of such individuals as these, where sudden and large augmentations are made in the numbers of the military medical body, the appointments may be made provisionally.

These qualifications, says Dr. Stromeyer, cannot remain long concealed from an observing chief; and form, in his opinion, a much better basis for appointments in war than the over-estimated rolls of seniority. The latter consideration, when compared with fitness, should, in our author's opinion, be disregarded.

The author believes that in the north of Germany the service has been improved by the decay of the special schools for

military medicine, and the assumption of competent men from the universities."

"Dr. Stromeyer is of opinion that the construction and management of hospitals should be regularly taught in universities by public courses, for the information of the young men in pursuit of medical honors; and that governments would then never experience any difficulty in selecting persons properly qualified to discharge these important duties.

In constructing military hospitals, part of the trouble is saved by the avoidance of the necessity of providing for both sexes. The idea has been relinquished, that it was desirable to assemble great numbers of patients with the same complaints in large wards; those more recently prepared not containing, in general, more than a dozen beds. This Dr. Stromeyer prefers, conceiving that the object of classification requires smaller rooms. In the General Hospital, at Hanover, there are rooms of three sizes; thirteen that contain sixteen beds each, sixteen for four beds, and eleven provided with only one or two apiece. It is difficult to estimate with confidence the relative proportions of mild cases and of the severe ones which any hospital is likely to receive; but by ascertaining the facts from similar institutions, it is not impossible to approximate to this result. The milder cases, for convenience, should be grouped in the larger rooms; but smaller ones are indispensable, from the necessity of separating the severe cases, and frequently of isolating them. The motives for this will sufficiently suggest themselves: silence; freedom from interruption; the necessities of peculiar cares, sometimes unpleasant to others; a peculiar state of the atmosphere, and of light; and lastly, the presence of those very ill or dying, with all the injurious effects upon the minds of those who are ill themselves, and often in a situation really, or in imagination similar. Dr. Stromeyer hence finds it necessary to intersperse the large wards with a sufficient number of smaller rooms to answer these purposes."

"The professor sums up the general impressions which his observations have left on his mind in the following dogmas or propositions, which he submits with great modesty to criticism:

1. The healing art is founded upon the natural history of disease. A good therapeutic method must follow the physiological processes which are disordered in the patient. This includes injuries which are the subject of surgery, and also poisoning.

2. There are no specific remedies. All that appear such should be explained physiologically.

3. Regulations of the mode of life of the patient is the most important problem which is laid before the physician, as it relates to the action of all the stimuli which support and modify life. This is equivalent to diet, in the original Hippocratic sense. (*Floes, sub verbo.*)

4. Medicine should never be given till the mode of life is previously regulated. To practice medicine in foul air, or during the use of improper food, is like making chemical investigations with impure reagents.

5. Drugs should be given when they are necessary or *euphemistic*, and when they are indicated. By the word which we have expressed in italics, we presume that the author means in good repute.

6. A good medicine must be one which will never add to any of the detriments which the patient is liable to suffer in the course of the disease. Such a remedy should be considered faulty or imperfect.

7. The natural history of the disease includes the groundwork of its existence; and this leads to the most noble problem submitted to physicians—the prevention of disease.

Military physicians are more frequently than others in a position to render services of this kind.

‘These maxims,’ says our author, ‘characterize the true physician; and the reverse of them, the quack. Let them be to us words of counsel, beloved as the beautiful constellations that guide the ship through the ocean.’”

LECTURES ON MILITARY SURGERY:

DELIVERED DURING THE SUMMER COURSE OF THE MEDICAL
DEPARTMENT OF LIND UNIVERSITY.

By E. ANDREWS, A. M., M. D.,

PROFESSOR OF SURGERY; SURGEON TO THE MERCY HOSPITAL; TO THE LIND MEDICAL DISPENSARY, &c.

LECTURE FIRST.

War always contemplates the destruction of human life; but, in all civilized nations, measures are taken to alleviate the horrors of combat by attention to the condition of the sick and the wounded. Hence arises the necessity of a medical department in all modern armies.

Among the ancients, we find but faint traces of any systematic organization of military surgery; still, the existence of such a service in the armies of old, and the high value set upon it, is obvious, even from the poetry of Homer.

The objects of a medical department are three in number:

I. To preserve the health of the army, in order that there shall be as many men as possible, at all times, in a condition to fight.

II. To keep up the courage of the troops. Men are reluctant to rush into a fight, if they know that in case of being wounded, they will not be cared for, but left to die on the field.

III. To fulfil the duties of humanity, which require that the terrors of war shall be as much as possible diminished.

In the United States Army, this branch of the service is called the "Medical Department," but the officers of it are denominated Surgeons. Although these men are officially called Surgeons, it must not be supposed that their business is chiefly surgery. During the times of peace their services are almost exclusively medical, and even in war, the wounded are few in number compared with those sick of disease. During the Mexican war, the deaths from disease in our army were seven times as many as the deaths from wounds. Other wars show similar statistics.

The mode of admission to the Medical Department of the army is as follows: For permission to present himself before the Examining Board, application must be made to the Secretary of War, stating the present residence, date and place of birth of the applicant; this application must be accompanied by respectable testimonials of his professional, moral and physical qualifications; and further, the applicant must be between the ages of twenty-one and twenty-five years. It is not requisite that he should be a graduate of any college, as the examiners trust entirely to the results of their own questioning, and give no credit to the testimonial of a diploma. If the Secretary of War grants the request, the applicant will receive an invitation to appear at a certain time and place for an examination. The Board of Examiners

generally consists of three surgeons, appointed from time to time, and who meet, sometimes in one city and sometimes in another, as often as required, for the examination of candidates. It is the object of the Government to secure a superior class of men; hence the examination is very rigid, embracing both the literary and professional qualifications of the candidate. Those who are approved, are notified to return to their homes and await orders, and are called into service as fast as required.

On first entering the army, the medical officers have the title of Assistant Surgeons. This, however, is by no means a well chosen term, insomuch as they are not the mere *assistants* of the Surgeons in the ordinary sense, but simply *Surgeons* of the lowest grade. The Assistant Surgeons have the rank of Lieutenant. After five years of service, they again pass before a Board of Examiners. If found deficient in knowledge, they are dropped from the service; but if not, they are promoted to the grade of "Assistant Surgeons of more than five years service," and are provided with increased pay. After another five years they are again promoted, and in twelve or fifteen years may attain the rank of Surgeon. The Surgeon has the rank of Captain.

At the head of the whole Medical Department is the Surgeon-General, (Dr. Lawson is the present incumbent). The Surgeon-General resides at Washington, and has control of all the matters pertaining to his branch of the service. This position is the highest one attainable, and is generally reached according to the rule of seniority, so that a man can always tell exactly how many men must die before he can reach the highest position.

The pay of the medical officers is as follows:

Surgeon-General, \$2,740 a year.

	Pay per Month.	Allowance for ser- vants, rations, and horses.	Total per Month.
Surgeons of over 10 years service,	\$80 00	\$143 00	\$223 00
" less than " "	80 00	107 00	187 00
Assis't Surgeons of over 10 years service,	70 00	103 50	173 50
" " " 5 "	70 00	67 50	137 50
" " less than 5 "	53 33	67 50	120 83

In case of the officer being stationed where servants, horses, and extra rations are not required, an equivalent for servants' rations and forage for horses may be drawn in money.

In the volunteer forces lately raised by requisition on the States, the rank and pay is the same as in the regular army, but the mode of admission varies according to the law of the States. In Illinois there is a Board of Examiners, consisting of Dr. N. S. Davis, of Chicago; Dr. G. W. Stipp, of Bloomington; Dr. Wm. M. Chambers, of Charleston; Dr. Chas. Ryan, of Springfield; and Dr. Carpenter, of St. Clair County.

All candidates who choose, appear before this Board, and if competent, are recommended for Surgeons or Assistant Surgeons. From the list of persons thus approved, the Colonels of the regiments select one Surgeon and one Assistant Surgeon for each regiment.*

In Wisconsin, the proper authorities select without examination, such surgeons as they consider suitable.

The Surgeons and Assistant Surgeons are provided by Government with a full assortment of surgical instruments, medicines, and a moderate list of the most necessary books. In certain circumstances, private physicians are temporarily employed by the army, at from thirty to one hundred dollars a month.

The duties of an army surgeon are various, but may be summed up under three heads: 1st, The examination of new recruits; 2d, The arranging and advising about the sanitary care of the army; 3d, The care of the Hospitals and Ambulances.

In examining new recruits the object is to ascertain whether the men are sound and physically competent for service. For this purpose the surgeon must take the recruit into a private room and cause him to strip completely. He then examines his chest, his limbs, and, in fact, his whole body. The recruit must not be below a certain regulation stature. His eyesight must be good, the front teeth, (required in biting cartridges)

* This applies only to the six regiments just raised. Colonels of regiments appoint their own Surgeons and Assistant Surgeons for the regiments now organizing, without reference to certificates of qualifications. [See editorial on a preceding page. R.]

must be present; the lungs and heart must be sound; the skin must be free from contagious eruptions; there must be no hernia; and the limbs must be free from ulcers, extensive cicatrices, or any other blemish which would impair their use. Deafness, or any other serious disease, is also ground for rejecting the applicant. The recruiting regulations of different nations, are different. In France it used to be remarked that the rules were rather framed to prevent men who should serve, from evading the duty; while in England and the United States the object seems to be rather to prevent any but the best men from being accepted. In general, therefore, the more anxious a government is to obtain men, the lower will be its standard of quality as given for the guidance of the examining surgeon. In case an involuntary levy of men is made in any community, the surgeon will meet a certain number of feigned diseases, gotten up by the recruit to prevent his enrolment. In these cases, it is necessary for the Surgeon to use all his acuteness and caution lest on the one hand the Government be defrauded of proper men, or on the other it be saddled with useless invalids.

The attempt, in ancient times, to escape military service by surgical mutilation has transmitted a peculiar word even to our times. When the chief arm of service was the bow, the thumb of the right hand was necessary in drawing the string with the arrow. Men who desired to escape the dangers of war therefore cut off their thumb, and thus rendered themselves unable to fight. Hence *pollicis truncatu*, or cut thumb, was the term applied to such cowards. This phrase, transmitted through the French language, became first, *pol tronc*, and afterwards in English, *poltroon*.

Considerable debate has been excited respecting the relative rank and authority of medical and military officers. Formerly, medical men had no established rank in any civilized army. In France, the Surgeon cannot order even the nurse to obey him, he being supposed only to examine, prescribe, and operate. In England, the medical men have authority, but no rank. In this country they have both rank and authority. The Assistant Surgeons rank as Lieutenants, and

the Surgeons as Captains. Even this late improvement has been a matter of hot dispute. It is contended on the one hand, that to permit the Surgeons to control exclusively the matters of their own department, will set up an independent power in the army, which would come in collision with military plans and prevent efficiency of service. On the other hand it is urged that Surgeons are alone competent to direct in-sanitary and medical affairs, and that to refuse them the authority to execute their plans, is to imperil the army by pestilence, and in many instances, to insure its actual failure and disgrace—things which have occurred from this cause many times in history. As to rank, it is claimed that Surgeons on the field of battle, are often exposed to fire, and off from it they face, day by day, the greater dangers of pestilence in crowded hospitals: they are therefore deserving of the reward and stimulus of suitable rank.

In this dispute, the true position appears to be this: First as to executive authority. The chief end of the army is to gain the battle, the campaign, and the war. To this end, in the very nature of military affairs, all questions of life, health and property are subordinate; hence the field officer must be allowed to march his troops into pestilential marshes. If the site of the Hospital is required for a redoubt or a battery, he must have power to remove it, and in all cases, he must be allowed for military reasons, to execute military operations, even though the sanitary interests of the army be, for the time, injured. But in the internal affairs of the Medical Department the Surgeon should have power to enforce his own authority.

In respect to rank, there is no reason why the medical officers should not be put on an equality with those of other branches of the service. Certainly, their knowledge, their skill, the dangers which they incur, and the importance of their functions entitle them to rank with the best.

JOHN C. DALTON, JR., M. D., the eminent physiologist, has been appointed Assistant Surgeon to the Seventh New York Regiment.

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ARTICLE I.

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By E. ANDREWS, A. M., M. D.,

PROF. OF SURGERY; SURGEON TO THE MERCY HOSPITAL; TO THE CHICAGO MEDICAL DISPENSARY, &c.

LECTURE SECOND.

GENTLEMEN:—In my first lecture I gave you an account of the organization of the Medical Department of the United States Army, of the mode of admission into it, and also of the duties of the Surgeon in examining recruits offered for the service.

To-day we treat of more important topics. Many a gallant army, unsmitten by the sword, unopposed by the enemy, has succumbed, and fled in disgrace before invisible foes, whose onset the physician alone knows how to guard or meet. Fortified cities have been taken by pestilence, while besiegers thundered at the gates in vain. Campaigns have been broken without a battle, by cholera and plague; and even when these extreme disasters have not occurred, it has, from all ages, been true, that disease, and not the sword is the chief agent of destruction which thins the ranks of war.

The diseases which thus work the ruin of armies, are of kinds which, by care, may be *effectually prevented*; hence,

one of the most important duties of a Military Surgeon is to give advice respecting

THE SANITARY MANAGEMENT OF THE ARMY.

In war, the curing is of necessity subordinate to the killing department; hence, even the Surgeon-General will not often be allowed to change the march, or locality of troops, for the sake of their health. Nevertheless, the medical officer may give the most important information on this subject to those who direct the troops, and in this way save thousands of lives, which otherwise would have been sacrificed to improper management, unnecessary exposure, and insufficient care. For this reason the Military Surgeon should study *Hygiene* in its every possible application, and become competent to instruct the other officers. He should not only be able to treat the sick and the wounded in the camp, but he should also be competent, at the commencement of the campaign, to point out to the commanders the kinds of disease to be expected, the possible severity of their onset, the places where they will be most prevalent, and the particular months in which they will make their attack. Then, also, he should be competent to show how these evils can be mitigated or prevented; and what particular supplies of food, clothing or shelter are required for that end.

FOOD AND DRINK OF THE ARMY.

The rank and file of all armies are supplied with an exceedingly simple diet, consisting of little more than bread and meat—the latter generally salt. The daily allowance of food for each man is called his “ration,” and is as follows:

Bread or flour.....	18 oz.
Or hard bread.....	12 oz.
Or corn-meal.....	20 oz.
Also Beef.....	20 oz.
Or pork or bacon.....	12 oz.

Besides these there is a small allowance of rice, beans, sugar, coffee, vinegar, salt, soap, and candles. The articles of diet, therefore, are limited in number, hence, if there is any failure in the quality or quantity of the rations, it tells with ruinous effect on the health and spirits of the soldiers. It is the duty,

therefore, of the commander in providing for the health of the army, to see that the food of the men shall in no case be scanty or bad. So far as possible, fresh meat should be given out instead of salt. A body of men kept exclusively upon salt food, will inevitably be attacked with *scurvy*. This seems not to be sufficiently understood by many military men. The impression is, that scanty diet, hard toil, and absence of vegetables are the principal causes of *scurvy*, and not salt food. This is an error. *Scurvy is the specific effect of an excess of salt in the system, just as much as mercurialization is of mercury, or iodism is of iodine.* Starvation, hard toil, and absence of vegetables, all combined, will not produce it, if the little food that is eaten be *fresh*. This was well shown in Dr. Kane's famous expeditions to the north in search of Sir John Franklin. Dr. Hayes, who was of the party, informs me that, though the Esquimaux often suffer extremely from starvation, cold, and other hardships, they never have *scurvy*, because the little food they do get in times of scarcity is *fresh meat*; while the crews of vessels which frequent these waters, living on salt food alone, are afflicted beyond measure. At one time Dr. Kane's command was divided into two parties, one of which remained on the ship with plenty of *salt food*, and a good shelter, with a supply of fuel. The other made an expedition on the ice, slept out of doors, got out of provisions, and had to live solely on some very scanty supplies of fresh walrus-meat, obtained from the Esquimaux. In this case the sheltered and well-fed party in the ship, living on salt food, was smitten with the *scurvy*; while the famished and overworked company on the ice, having only fresh flesh diet, without any vegetables at all, were entirely free from the disease.

If, then, the army is kept exclusively on salt food, and the men have no opportunity of getting anything else, *scurvy* will inevitably appear; nor will the Surgeon be able to prevent it by doling out little glasses of lemon juice, or other supposed specifics for the disease.

If the circumstances of the campaign prevent, for any long time, the obtaining of fresh food, the soldiers should be taught the art of freshening their meat before cooking it, by steeping it in cold water; and at the earliest possible moment, the

continuity of the salt supply should be interrupted, by the slaughter of fresh beeves. Salt meat may be well freshened by cutting it into pieces of about four ounces and letting it stand in the kettles over night, covered with cold water. The water will extract most of the salt and leave the meat more suitable for cooking. In border warfare upon the western plains, a very excellent resource is the *pemmican* of the Indians and the French traders. This consists of buffalo meat dried fresh and beaten up with the fat. It is portable, keeps perfectly any length of time, and may be kept on hand for an occasional meal when other fresh supplies fail. Of course, all opportunities should be embraced to supply the men with vegetables; they are very important to health, but I wish you, gentlemen, to understand that the chief cause of scurvy is *not the absence of vegetables*, but the presence in excess of chloride of sodium. The modes of cooking practiced by the soldiers have a considerable effect on their health, and the Surgeon should be competent to give complete and practical directions upon the subject. In the Crimean war, the famous cook, Soyer, was sent out by the government, and succeeded in effecting great improvements in this department. The following are some of his directions:

SOUP FOR FIFTY MEN.

“Put into the boiler, $7\frac{1}{2}$ gallons of water; fifty pounds of beef or mutton; three pounds of rice; eight pounds of fresh vegetables; ten tablespoonfuls of salt; one tablespoonful of pepper. Simmer three hours, and serve. Skim off the fat, which, when cold, is an excellent substitute for butter.

PLAIN IRISH STEW FOR FIFTY MEN.

Cut fifty pounds of mutton into pieces of a quarter of a pound each; put them into the pan; add eight pounds of onions, twelve pounds of whole potatoes, eight tablespoonfuls of salt, three tablespoonfuls of pepper; cover all with water, giving about half a pint to each pound; then light the fire. An hour and a half of gentle boiling will make a most excellent stew. Mash some of the potatoes to thicken the gravy, and serve. Fresh beef, veal, or pork, will also make a good stew. Beef takes two hours doing.

This I know to be a most excellent dish. It can always be prepared upon the march, in time for the men's dinner or supper.

FRENCH BEEF SOUP—CAMP FASHION.

Put in the camp kettle, six pounds of beef, cut into two or three pieces, bones included; three-quarters of a pound of plain, mixed vegetables, as onions, carrots, turnips, celery, as can be obtained, or three ounces of desiccated vegetables; three teaspoonfuls of salt, one of pepper, one of sugar; eight pints of water. Let it boil gently for three hours; remove some of the fat, and serve.

The addition of half a pound of bread, cut in slices, or one pound of broken biscuit, well soaked in the broth, will make a very nutritious soup. This is enough for six or eight people. The quantity required for a company is easily calculated.

STEWED SALT BEEF AND PORK FOR ONE HUNDRED MEN

Put in a boiler of well soaked beef, thirty pounds, cut in pieces of a quarter pound each; twenty pounds of pork, cut up; one and a half pounds of sugar; eight pounds of onions, sliced; twenty-five quarts of water; four pounds of rice. Simmer gently for three hours; skim the fat off the top, and serve.

If soup is not made, the beef may still be boiled, but in a different way. Soup should be made by beginning the process with cold water at first, and then simmer at 160° till done.

The general rule is, that roasting is to be done quickly, and boiling slowly.

In roasting, the loss of beef is nineteen, mutton twenty-four, but their chemical constitution is not changed. The loss is made up of water evaporated, and fat melted and mixed with gravy. But in boiling, the loss, though less in amount, is more serious in quality; it is made up of fat, gelatine and water, with some albumen and hematosine; and if salt is used, potash is likewise lost. Therefore the broth should be eaten.

The bean soup, made by soldiers in the army, is the best I have ever eaten. They prepare it by soaking the beans all night. The ration of pork is boiled in it, and any fresh or desiccated vegetables they can procure. Potatoes and onions are great favorites with them. It is seasoned to the taste with salt and pepper."

In tropical countries, the men occasionally suffer from improper indulgence in various fruits; but as a general rule, a

large army will not be able to get enough of them to be in any serious danger from excesses of this kind.

The supply of suitable water for drinking is also important. If encamped by marshy ground, the men should be prevented from drinking the deleterious vegetable infusion, dipped up from the swamp. Good water should, if necessary, be brought even from a distance by teams. In the southern parts of our great west, the inhabitants make much use of rain water for drink, believing it to be healthier in their country, than the water of the springs and wells. It will not often be the case that armies, however, can avail themselves of this resource, though small detachments may find it convenient and safe to follow the custom of the country in that respect, and supply themselves from cisterns. The water of the Mississippi will, of necessity, furnish the drink of great bodies of men during the present war. From the confluence of the Missouri downwards, this stream presents a foul appearance, highly alarming to men who are accustomed to drink from the crystal springs of the north. The stream has the exact color of the water which flows in the gutters of a dusty wagon road after a thunder storm. If a pailful of it is dipped up, it will deposit a half an inch of mud upon its bottom in settling. The unhealthy appearance of this water is, however, a delusion. The sediment in it is mostly insoluble mineral matter, which is deposited upon filtering or settling, and there is actually much less in it that is unwholesome than in many hillside springs. The inhabitants of the banks of this great river, after full experience, pronounce its muddy waters a perfectly safe drink.

Coffee has been highly praised as a daily drink for soldiers. I do not think it has any sanitary advantage over water, except that it gives an air of comfort to the camp, and makes the soldier more cheerful at his meals. Alcoholic liquors have long been a part of the regular supplies of our army, but they have latterly been discontinued, except in cases of unusual exposure, and coffee and tea are substituted in their place. In cold climates it is probable that the daily use of alcohol is less injurious than in the tropics; but in warm regions there

is no doubt that the daily dram causes many a stout soldier to succumb to the deadly climate. Men who drink habitually are not as hardy under climatic exposure as others. Almost all the cases of sun-stroke occur to habitual drinkers; and in every other climatic disease they are the first victims. If the Surgeon's professional opinion, therefore, is required, it should be to the purport that alcohol in a hot climate is deleterious, and that the men are physically better without it. If a stimulant is demanded, coffee is undoubtedly to be preferred.

On a march, the canteens of the men should be frequently filled with water, in order that by often sipping it they may be prevented from suffering excessive thirst, and not be under a temptation on arriving at a stream to rush in and drink to a fatal excess. They should be cautioned after great and exhausting efforts against this imprudence.

CLOTHING.

No arbitrary rules can be given under this head. The clothing should be adapted to the climate. In cold regions warmth is to be secured, and in the tropics coolness sought after. The stiff adherence in a climate like that of India, to a dress, devised for warmth in England, is absurd; and a similar error should not be committed in this country. In the hot summer of our gulf States, the usual dress of the soldier should be of thin porous woolen, loose and free, and not absurdly buttoned to the chin. Heavy caps, hats and helmets may be tolerated occasionally on parade, but should not appear in battle, nor on a march. The soldier should have a single substantial blanket, strong shoes, and woolen stockings. The hat, whatever it is, should be porous and allow free ventilation between it and the top of the head. On marches, and in battles undertaken in hot weather, a wet handkerchief placed within the hat keeps up an evaporation and goes far to protect the person from sun-stroke. It is desirable that some other shelter from the sun's rays should be attached to the dress. The Arabs of the desert always wear a sort of cape or veil covering the entire scalp and back of the neck. The British soldiers in India found it necessary to

devise a similar thing, and probably it will be required in this country also. A suitable cap-cover may be made of any white or light colored fabric, which does not, like black, grow hot in the sun. It should cover the whole top, sides and back of the head, and hang down as far as the shoulders behind. This will be found to materially diminish the mortality from sun-stroke.

The proper dress for a soldier is a difficult problem in some respects; and the Surgeon will seldom see his own wishes in the matter, put in execution by the government; nevertheless, he should be prepared to state clearly the true principles involved in the hygiene of clothing.

ARTICLE II.

COMMENTS on "*Notes relating to the Extirpation of the Parotid Gland*," by Prof. Brainard, M. D., in the *Chicago Medical Journal* for October, 1860.

REMARKS on the *Surgical Treatment of Spina Bifida*—Summary of Prof. Nelaton's *Clinical Lecture on the Injection of Solution of Iodine in cases of Hydrorachitis*, after the Manner employed by Prof. Brainard.

By TITUS DEVILLE, M. D.

We suppose we must consider these notes of Prof. Brainard as a sort of rejoinder to our critical essay published in the *Chicago Medical Examiner*, but they are really so weak and so little is advanced in them in reply to the arguments then brought forward, that we conclude therefrom that Prof. Brainard is utterly incapable of meeting them with powerful opposing facts deduced from the sound knowledge of anatomy and pathology, and the experience of the best modern surgeons. We are obliged, therefore, to content ourselves with combatting the sophistry so easily detected in these "notes," and refer your readers to the essay in question, to enable them more fully to arrive at a correct judgment of the real merits and objects of the discussion.

Prof. Brainard cites the opinions of Professors Granville, Sharp, Patteson, Mutter, Vidal and Gross, on the *possibility* of

the extirpation of the Parotid. Now we here protest against the inference with which Prof. Brainard would seemingly wish to blind his readers: That the possibility of the extirpation of the Parotid had been called into question by us. We did not assert the utter impossibility of its removal; but contended that it was a dangerous operation and not easy of accomplishment, in contradiction to the opinion of Prof. Brainard. We advanced the opinion that the Parotid was remarkably exempt from malignant disease; when affected, we believe it is from disease being propagated to it from other structures.

According to Prof. Brainard, this gross error into which we have fallen, ought at once to be detected by any medical practitioner, and yet we find that Velpeau, Ferguson and Liston, the great practical authorities on which such an opinion was founded, emphatically deny that they have ever seen disease of the Parotid; that what was supposed to be disease of the Parotid, was not in reality such, but only of one or more of the lymphatic glands in this region, and which were comparatively easy to remove and unattended with any great danger from being limited by a cellular cyst.

In addition to the strong testimony on this point given by the three greatest surgeons of modern times, we have also the negative evidence of the most recent writers on pathology, such as Houel, Wilks and Bennett, who do not cite one case of disease of the Parotid (excepting enchondroma, which is a rare malady,) which, coupled with the non-existence of real specimens in some of the greatest museums in Europe, must make any intelligent medical man hesitate before he receives the number of ninety-one cases, compiled by Prof. Brainard as bearing the slightest impress of truth, and which cases are to be considered in no other light than as so many mistakes as to the real nature of the malady. It becomes totally another question when the disease is not limited to the lymphatic glands; in such a case we find all the neighboring parts more or less involved; we cannot then call it *cancer of the Parotid*; the propagation to structures on the side of the neck, lower jaw, and deep-seated parts, prevent such a denomination. Most medical men have seen such cases.

Moreover, to prove from another point of view, the proneness of the lymphatic glands to cancerous disease, and the exemption of the salivary glands, we may cite the submaxillary gland, *which in ultimate structure is like that of the Parotid*, and we fearlessly avow that we have never heard or read of a case of cancer of this gland by any notable surgeon—notwithstanding that we have searched innumerable authorities on this question.

Dr. Paoli referred to in the "Notes," has compiled from a great number of old authorities, cases of supposed cancer and extirpation of the Parotid; as well might he cite testimony, respectable in its day and generation, in favor of any other exploded error; it is only in recent times, that we have been enabled to determine with precision, the nature of those maladies. These remarks apply equally to the cases cited by Prof. Brainard.

We are somewhat surprised and amused at the unreserved manner with which Prof. Brainard cites Prof. Gross as an authority, when it may serve his purpose, recollecting the grave doubts which he expresses on Prof. Gross being considered as perfectly reliable, in a critical review of the learned Professor's work on pathology, in the very number of the *Chicago Medical Journal* for 1859, in which he narrates the cases of supposed extirpation of the Parotid. Finally, the main question which we sustained, seems to have been entirely overlooked by Prof. Brainard, viz: that we contested the interpretation which he put on the operations performed by him in the Parotid region, and that from the description given, we were convinced he had fallen into error on their real nature. We perfectly agree with him that what he *really effected was safe and practicable*, but what he *proposed to do* was very dangerous, and that *he did not remove the Parotid*, because it was not involved in the cases so described.

We here terminate our comments on "*Notes Relating to the Extirpation of the Parotid Gland*," and devote the second part of our communication to a few brief remarks on the injection of solutions of Iodine in cases of Hydrorachitis, after the manner employed by Prof. Brainard.

We are tempted to this step, and believe it will prove inter-

esting to your readers in consequence of some critical remarks made by Prof. Nelaton, at the Clinical Hospital of the Faculty of Medicine, Paris, in his clinical lecture delivered on the 22d of March last.

Having been apprized beforehand that two cases would be commented upon by Prof. Nelaton, in which he had injected solutions of Iodine, we were anxious to learn the opinion of one of the most enlightened surgeons of modern times on such an operation; premising that we were averse to any surgical interference in such cases, further than the mere protection of the tumor, from having had, ourself, considerable practical experience of the evils resulting from various plans which had for their object the disappearance of the tumor.

Theoretically and practically, we do not hesitate to say that in the vast majority of cases active surgical interference is unadvisable; but before we enter into our reasons for such an opinion, let us briefly define the nature of the lesion.

Spina bifida is an arrest of development, in which a portion of one or more of the neural arches is wanting; viz: the laminae and spines of one or several vertebrae, usually situated in the lumbar and sacral regions, but occasionally found in other parts of the vertebral column. Over this region, where the spine is cleft, exists a fluctuating tumor from an abundance of the cerebro-spinal fluid which is there collected; because the membranes enveloping the spinal cord being deprived of the support naturally given by the neural arches, bulge out the skin, and fluid is accumulated, forming a tumor along the middle line of the back.

Reasons, Theoretical and Practical, against Active Surgical Interference.

1st.—The fluid, which forms the great bulk of the tumor, has a conservative action, tending to diminish greatly the effects of any blow or fall on the tumor, (which, when situated in the lower part of the vertebral column usually contains the terminal part of the spinal chord and its nerves,) by equalizing the pressure and preventing the mischief which would ensue from any direct violence to the nervous centres and the nerves which emanate therefrom.

2d.—That any evacuation or absorption of this fluid, whether by means of a fine seton, or by the injection of an irritating solution, exposes the cord and nerves to *immediate danger* from inflammatory action, paralysis, convulsive movements, or other disturbance of the nervous functions, together with their *remote mischievous results*.

3d.—Most surgeons know of examples in which these tumors on being left to themselves do not cause any constitutional symptoms requiring surgical treatment; but persons may and do live the ordinary term of life without suffering any inconvenience therefrom, further than by their bulk.

4th—Most surgeons know that death frequently ensues from actively interfering with such tumors,—for our own part, we have seen upwards of twenty cases terminate fatally.

To sum up briefly the remarks of Prof. Nelaton, in the lecture referred to, he treated successively of the

Principles of the Operation.—Absorption of the fluid contained in the tumor, thus diminishing the bulk or causing its total disappearance.

Cases to which it is Applicable.—A very small number, where the tumor is pediculated, and the communication can be interrupted between the sac of the tumor and the cavity of the spinal canal, so that the fluid injected shall not pass along the membranes of the cord, and also where the cord is not placed within the tumor. He cited a case of M. Robert, of the Hotel Dieu, in which, whilst injecting such a tumor, the *child died immediately*; at the autopsy the injected fluid was found to have mounted as *high as the medulla oblongata!*

Mode of Procedure.—Great precaution necessary; he detailed the method with the formula employed by Prof. Brainard, showing that the quantity of fluid to be injected should be small, and that the iodine solution should be very weak.

Results and Deductions.—Paraplegia in both cases. He confessed it had been a very unsatisfactory method in his hands; two children previously in a good state of health suddenly rendered paraplegic.—Without positively denying the truth of Prof. Brainard's results, he yet expressed some doubts as to the correctness of all the cases reported.

ARTICLE III.

“THE MIRACLE OF ANÆSTHESIA.”

AN INAUGURAL THESIS.

By FRANK W. REILLY, M. D., Chicago.

The doubting Disciple, whose vision required the corroborative testimony of his touch, has, unquestionably, far outstripped his brethren in the number and zeal of his followers. The words of the Hebrew preacher, in their most literal and isolated sense, embody their creed: *We believe* “There is no new thing under the sun;” and to them any attempt to change the manners and customs of their fathers comes in such questionable guise as to warrant their most active incredulity. Unfortunately, too, no experience is impressive enough to be lasting in their doubtful souls; but convinced, if convinced at all, “against their wills, they are of the same opinion still,” with reference to every new phase presented by human progress. Faith, even as a grain of mustard seed, is omitted in their constitutions; and we are finally obliged, so widely-spread and so ineradicable is the evil, to admit that antagonism to the New, and blind adherence to the Old, is as much the normal condition of some minds, as is, of others, a healthy progress towards the true and right, regardless of the ruts and grooves of time-honored custom. And the proposition is equally true of all the various branches of human industry, science or art—alike in Medicine and Mechanics.

I have termed this opposition an *evil*,—and yet it may have its important uses—as leading to fuller elucidation, more thorough research—killing off pretension and sham—a sort of natural psychological agency, cutting off those children of the brain, born below that minimum of value, which is a condition of scientific viability, as the Anatomist of Harvard might say. This, however, I do not propose to discuss here, content to know that the history of Medicine furnishes instances of more determined and unscrupulous hostility to innovation, than that of any other Science or Art. The early history of

the Circulation of the Blood, with its chain of contradictions and corrections, linking the centuries, furnishes a fair illustration:—Erasistratus, Galen, Vesalius, Servetus, Columbus, Cesalpinus, Fabricius and his immortal pupil, Harvey—each a step in advance of his predecessor, and all a subject of ridicule, abuse and persecution for that step. The following quotations from the cotemporaneous literature of Harvey, may be interesting and novel enough to warrant their introduction and excuse their length:

Guy Patin, Dean of the Faculty of Paris, about 1660, and who has been recently complimented, possibly justly, as “a wit, and a man of sense and learning,” wrote as follows: “If M. Duroyer knows nothing more than how to lie, and the circulation of the blood, his knowledge is limited to two things, of which I hate one, and do not care for the other. Let him come to me and I will teach him a better way to a good practice of medicine, than this pretended circulation.” “A wit,” certainly,—but “a man of sense”!! And his colleague, Riolan, whom Bartholin called the *greatest* anatomist of the age, wrote to a friend, as follows, *apropos* of the then newly announced discovery of the lacteal circulation:—“Every one must now be making discoveries. Pecquet has done worse; for by his new and unheard-of doctrine of the lacteals and the thoracic duct, he will upset both the ancient and modern systems of medicine.”—and more to the same effect. Indeed, we find this estimable Faculty of Paris, this Medical Inquisition, arraigning before it every unfortunate wight who dared be so much the master of his own brain and its research as to question their infallibility, or to protest against the dogmas of their immaculate conception. Opium, antimony, cinchona, even tea, fell under their ban—this last being characterized as an impertinent innovation. Those who dared exhibit antimony were tried and condemned by the Faculty, a proceeding, which in the words of the learned Dean,—“brought them back to their senses. If,” continues Doctor Patin, “they should be again wanting in their duty, *we* shall not be in *ours*; but shall proceed summarily against them, so that they will be forever expelled from amongst us.”

I may not stop to dwell upon the abuse heaped upon those who undertook to check the use of the lancet, by the disciples of Dr. Sangrado—of whom this very Patin was one of the most ultra, bleeding one patient *thirty-two* times in one attack; himself *seven times* for a cold; his wife *eight times in the arm and then in the foot*, and his mother-in-law only *four times, because* she was eighty years old! “We save more patients with a good lancet and senna, than were ever saved by the Arabian physicians with all their syrups and opiates.” What a fearfully fatal practice the Arabian must have been!

Again, the warfare against small-pox inoculation, by which the mortality of that dreadful scourge, was reduced from *one in four*, to one *in three or four hundred*, enlisted some of the most eminent members of the clerical and medical professions—the one urging its impiety, and the other its impropriety and danger; and so violent was the feeling that Lady Montagu protests that she “seldom passed a day in the first four or five years of the practice, without repenting her patriotic undertaking,” and that she would “never have attempted it, if she had foreseen the vexation, persecution, and even the obloquy it brought upon her.”

Half a century later, Jenner, the immortal, whose lancet, it is claimed, saved more lives than the sword of the first Napoleon destroyed, aroused such a storm of indignation, ridicule and abuse, that clergy, physicians and laity were alike carried away by it—the King, Parliament and Faculties implored to interfere against the “destructive practice of vaccination”—“a gross violation of religion, morality, law and humanity”—and personal violence, even, was offered to its advocates. In *Materia Medica*, the introduction of nearly every important agent; in *Surgery* the ligation of arteries, the flap operation, resection of the hip-joint, etc.; in another branch, the induction of premature labor and craniotomy, as conservative operations. In short, the history of the advent of all great new movements in medicine, as in other sciences, includes, if complete, the record of opposition and argument, so violent and illogical, so obstinate and absurd, as to excite the pity, wonder and ridicule of succeeding generations—themselves, but too often, re-enacting similar scenes.

Arguments, illogical and absurd, have been used in all ages by the opponents of Progress; but it has been reserved to this Nineteenth Century to urge the *desireability and beneficence of pain*, as an argument against the introduction of agents to annul it,—nay, to such extremes have the opponents of this “glad and glorious discovery,” this “Miracle of Anæsthesia” been driven, that, subsequently, they have tacitly, if not expressly denied the existence of Pain! reminding one in the sequence and congruity of their premises, of the defence of the woman, accused of returning her neighbor’s tub in a damaged condition: Firstly, the bottom was out when she borrowed the tub; and secondly, she never had the tub at all!

In the early day of this opposition, and when Anæsthesia was restricted to Surgery, such eminent names as Magendie, Syme, Cooper, Condie, and many others of less note were found advancing such arguments. The distinguished French physiologist thought it “a trivial matter to suffer,” and that “pain has always its usefulness.” Syme thought the pain occasioned, even by the most severe operations, the removal of tumors, amputations, lithotomy, etc., was “nowise unbearable”; indeed he gravely remarks in his report of a case of lithotomy, that “the fatal result was the effect of the removal of a source of extreme irritation in a very irritable system,”—in other words, the pain kept the man alive, and he died when it was removed! The medical literature immediately succeeding the announcement of Dr. Morton’s discovery, or application of a previous discovery, teems with articles reflecting such sentiments; but thanks to such earnest workers and friends of humanity as Simpson and Miller of Edinburgh, Liston, Bell and Snow of London, Flourens, Velpeau and Roux of Paris, Mutter, Pancoast, Gross, Mott, Carnochan, Mussey and others in the United States, such a position has long been abandoned; and while the domain of operative interference has been almost indefinitely extended, its mortality has been decreased, its dread paraphernalia of glittering steel and fearful engine, robbed of former terrors, and Surgery is now no long a synonyme for Suffering.

ingly pinned their faith upon his sleeve, viz: the fact that the profession ignores the learned Dr.'s theory of the "*Heart Clot*," and that his definitions and theories of Conception, Pregnancy, etc., given with so much emphasis of spaced words and epigrammatic diction, are taken only *cum grano salis*. Grant that the profession does not endorse these and kindred views; the very promulgation of such views proves the fallibility of their author; and if Prof. Meigs could issue and adhere to such a theory as that of the "*Heart Clot*," based, as it is, upon a palpable misapprehension of an effect for a cause; or could advance such definitions of two of the most important functions of 'the sex' as to logically yield such paradoxes as these:—*a woman may be pregnant before she conceives; abortion may occur before conception*,—if these are among his teachings, why may he not be equally in error regarding a matter, which he positively refuses to investigate?

The objections of Prof. Meigs to the induction of Anæsthesia in Parturition, as embodied in 1848, in a letter to Prof. Simpson, and as subsequently set forth, in connection with said letter, in his "*Science and Art*," may be summed up under two heads; 1st, *Its undesirability and impropriety*; and 2d, *Its danger and evil results*; and these include the items of all the arguments of its opponents worth notice. Indeed, I might very properly, and perhaps profitably, omit any notice of the counts under the first head; but from the prominence which has been given them, from time to time, I prefer a brief consideration of them.

The opponents of Anæsthesia allege, firstly, and most prominently, that its induction is undesirable and improper, for that the pain of labor "is a most desirable, salutary and conservative manifestation of life-force," (*Meigs*): and is "an essential element in the function of parturition," (*Ramsbotham*).

The first may be admitted, in part; the second, denied *in toto*.

That "an infinite Wisdom has contrived pain for our protection," has made it "the grand preserver of existence," "the sleepless sentinel that watches over our safety," I very

readily admit. The burnt child that dreads the fire, and the juvenile Davy, lustily kicking off the historic crustacean that would dine upon his toes, are alike the subjects of its beneficent, though apparently severe dominion; the "manifestation of life-force" in both instances, is, indeed, "most desirable, salutary and conservative."

The pain of parturition, however, is a "manifestation of life-force," "desirable, conservative and salutary" to this extent, no more: That it informs us, in the first stage, that the contractions of the fundus and body are pressing the child's head upon the neck and mouth; it is simply an index of the fitful conflict going on between the "contentive and expulsive faculty" of the former and the "retentive faculty" of the latter; and no more an "essential element in the function of parturition," than the clatter and noise of the printing press is an "essential element" of the diffusion of knowledge. In the second stage it possesses hardly this doubtful merit; and to urge any claim to favorable consideration of it in the third stage, is to imply that those fortunate women who escape without "after-pains," fail (to use a homely but very Yankee figure), "to get the worth of their money." These pains are not alone useless, but pernicious since they do not fulfil the legitimate office of Pain, which, according to the highest authority on the subject, Sir Charles Bell—before quoted, is that of Warning—warning that tissues are endangered, the integrity of organs threatened—warning to the end that the danger may be averted and relief afforded. But relief, in labor, can be afforded only by Nature in the slow process of the removal of the foreign body—the *fœtus*. Therefore, the pains are useless; and inasmuch as they tend to excite, exhaust and depress the patient they are pernicious. Why, then, not annul these pains—useless, yet so injurious? Oh, because, say the opponents of *Anæsthesia*, their wits sharpened by the force of necessity, because Pain is two-fold, *physiological* and *pathological*; and the latter only comes within the province of the physician. And so, labor-pains being the result of the "culmination of the female somatic forces," hence, "*physiological*," it is improper to interfere with them. And, besides,

If the record, ending here, were complete, humanity might congratulate itself, and the medical profession point proudly to this, as one of the brightest pages in its annals. Unfortunately, causes, in themselves, let us hope, temporary and inadequate, have combined to limit, almost exclusively, the use of Anaesthetic agents to the operating table; and in these pages I have proposed to myself to briefly examine these causes, to consider the arguments advanced against Anaesthesia in Obstetrics, and to again present the rebutting testimony of those large minded, active sympathizers with all human suffering, who fully realize the Baconian definition of the true physician—whose “office it is, not only to restore health, but to mitigate pains and dolours.”

I trust I appreciate in some degree the magnitude of the task, and the inadequacy of the instrument; but I reflect that forces are not necessarily commensurate with results, and am further assured by the belief that a reaction is taking place in the obstetrical mind on this point. In proof of this last, I may cite the fact that Prof. Ramsbotham, of London, whose name is classic in his branch, so far modifies his opinion in 1856, as to omit, in a great measure, the unequivocal proscription which characterized his dictum of 1851; and it is but fair to presume, in view of this known change, that he has since, still further become convinced of the untenable character of his position. Of the work of Prof. Miller, of Louisville, the result of the experience of over a third of a century's ministration “at the altar of Lucina,” and nearly ten years' administration of Chloroform, I need not speak, save to allude to the marked and increasing favor with which it is being received by the profession. That I do not allude more fully to the immortal discoverer of the process, J. Y. Simpson, of Edinburgh, is due to the fact that his position is fully recognized and undisputed—my purpose here, being to show the changes taking place, either in teachers themselves, or in the reception of their instructions.

The less grateful duty of examining the causes of proscription, involves the highest didactic authority of America—for to this proud pre-eminence in midwifery and its collateral topics

has Prof. Chas. D. Meigs, of Philadelphia, been assigned both by his own countrymen and by the profession of Europe. His position as a teacher, not less than his reputation for learning, skill and success, has been used persistently and uncompromisingly to the exclusion of the wondrous vapor from those who travail in child-birth,—with what success, let the agonized groans and shrieks from the lying-in chambers of five millions American mothers bear witness.

Filling the chair of his speciality in the leading college of the country, with annual classes of over five hundred eager, credulous students, and annual graduates numbering over two hundred,—in the twelve years of his hostility he has sent out upwards of twenty-five hundred practitioners and over six thousand students, imbued with the belief that the administration of chloroform to the induction of insensibility to pain in parturient women, is not only fraught with mischief and danger, but is a violation of both morals and religion. When to professorial influence is added the multiplied editions of his text-books, forming, no doubt, the entire obstetrical literature of numerous practitioners,—his further influence as a clinical instructor, and as member or officer of numerous other organizations, in all of which he is brought in contact with new minds, only too willing to receive, from his personal presence, courteous and winning to a degree, a favorable bias towards one of whom so much is said,—when all this is duly considered, is it any wonder that he should have succeeded in moulding the sentiment of the profession, on this point, so thoroughly as he has done?

Assuming this to be true, and that to the Obstetrician of Philadelphia is due the tabooing of this Miracle of the Age, it becomes necessary, first to examine, briefly, the weight and importance of his arguments against the practice: and secondly, to answer them as well as I may, in the light of the observations and experience of its advocates.

Before doing so, however, it may be but simple justice to notice an argument, which may be advanced by those seeking to deny the charge that Prof. Meigs has been allowed to do their thinking for them, or that they have always unquestion-

“really formed the safest and most trustworthy guide in the operation,” and was honestly “worth a thousand dogmas and precepts,” Prof. M. would not have omitted all allusion to it in his published works; the more especially, as Simpson observes, with quiet sarcasm, that “all other authors omit notice of it.” I cannot refrain, however, from calling attention to the case cited by Prof. Meigs on page 551 (*Obstetrics; the Science and Art*, 1852), and asking if such accident would have been possible in the motionless slumber of Anæsthesia? and if not, what becomes of the charge of undesirability? Here, the patient’s ability to dictate to the Surgeon by her sensations, was, it would seem, a thousand times more than counter-balanced by the conscious endurance of such pangs as to cause her to “throw up the pelvis,” so “violently and unexpectedly,” that the operator, (Prof. Meigs, himself,) was unable to prevent the “very severe laceration of the perineum,” from which effects, we are candidly told, it took her three weeks to recover. Would Prof. M. have us believe, that his knowledge of the anatomy of a portion of the human frame, he has made a life-long study, was so imperfect and unreliable, that without the “safest and most trustworthy diagnosis” of his patient’s sensations, he would inflict such laceration and injury, in the introduction of the forceps, as it would require three weeks to recover from? If not, is this charge tenable? Indeed, are not both arguments, and the charges they are meant to sustain, disproved over and over again, by Prof. Meigs’ own writings?

Not doubting the answer, I pass to the charge of drunkenness as a condition of chloroformal insensibility—a charge preferred by Ramsbotham in 1851, in the strongest manner, and urged with much eloquence and wealth of expletive; subsequently considerably modified, and pruned of its appeals to “moral obligations,” etc., but adopted by Prof. Meigs in his edition of ’52 in the following language: “But I cannot avoid the feeling of astonishment which seizes upon me when I read the details of cases of midwifery, that have been treated during the long, profound *drunkenness* of etherization.”

It is worthy of remark, that Prof. Meigs makes but the most cursory allusion to this objection in his letter to Prof. Simpson in 1848, and the "feeling of astonishment" does not appear to have seized upon him till 1852, or subsequently to Prof. Ramsbotham's preferment thereof. Dr. Murphy, in his "Chloroform in Childbirth," says: "The Anæsthesia of Chloroform has not the least resemblance to drunkenness; they have not a symptom in common." Setting this authority aside for the time, however, and admitting for the sake of argument, that the charge is true, how much more applicable is it to results produced by chloroform, than to the same produced by opium, camphor, (which Prof. M., with Dr. Physick, agrees "to have been made for women") cannabis indica, hyoscyamus, or any other of the large and very useful classes of inebriants, soporifics and delirians; and yet Prof. Meigs would be very careful how he placed any one of these articles in his *Index Expurgatorius*. Nay, with what a lavish disregard of Mr. Gough and individual consistency, does he prescribe "good Bordeaux wine" and a "small glass of sherry or port, at dinner," without a thought of the results inevitably accruing?

I do not know that I am able to point out the difference between the insensibility from whisky, gin, brandy, wine and beer, and that from ether and chloroform. Prof. Meigs says "no reasoning—no argumentation is strong enough to point out the ninth part of a hair's discrimination between them—*except* that the volatility of one of the agents, or its diffusibility as a stimulant narcotic, enables it sooner to produce its intoxicating effect, which is sooner recovered from in one case, than in any other of the use of an intoxicating drug." Add to this, that chloroform begets a positive disgust to its vapor, by use, and with this exception, I profess to be abundantly satisfied. For I claim that the insensibility of alcoholic intoxication is its least exceptionable feature; and if this be the sole point of resemblance between chloroformal and alcoholic intoxication,—if the use of the former agent, shall produce no appetite to be gratified at the expense of health, honor, happiness, friends, reason,

in this new view of the subject, they don't hurt near so much—at least, Prof. Meigs don't feel them so acutely, as when he wrote, with the sentimental *naïveté* of a Michelét his chapter on Labor and his Letters to his Class, from whence these extracts: “And the word (*Labor*), is highly expressive of the fatiguing, violent and painful struggles and efforts.” “The sensation, under these circumstances (the last expulsive pains) is represented as absolutely indescribable, and, certainly, as comparable to no other pain.” And again, when, in a generous glow of tender gallantry, he asserts that “Man cannot suffer the same pains as Woman”—and querying “What do you call the pain of parturition?”—justly answers, “There *is* no name for it, but *Agony!*”

This is certainly clear and unmistakeable; yet let us once again quote from the same high authority, and this time as touching our modern Cartesian doctrine of Pain:

“The pain of a labor consists chiefly, though not solely, in the pain felt at the cervix uteri, and is the result of *violence* done to the *texture* of the cervix and other parts, etc.”

“If a man strikes you a blow with his fist, and knocks you down, he hurts you and not himself; in the same way the fundus and the corpus uteri, when they strike to rive open and overcome the resistance of the cervix and os uteri, *hurt* them, *excite pain* in them, and sometimes even *tear them to pieces*,” etc.

Very well; but how does this violence, these blows, riving open and overcoming, hurting and exciting, even tearing to pieces, these exquisitely sensitive textures, how does this description comport with the following, written since Anæsthesia has so modified Prof. Meigs' views, and awakened to a spasmodic, ephemeral vitality, the Rowleys, Moseleys and Munroes of Jenner's time, and the scores of others, of every age, saved only from a charitable oblivion, by the unenviable notoriety which attaches to them, as opponents of the progress of their respective periods: “I contend that it is to an exaggerated notion of the nature of labor-pains, we owe the too frequent use of ether in our art.” “The representations that have been made by the friends of Anæsthesia, of the harrowing distress

endured by women in childbirth, do not consist with the general state of facts in the case." And again: "But in midwifery, to which a long and extensive practice has enured me, and rendered me a familiar, dispassionate witness of its various forms and phenomena * * * I have found that women provided," etc., etc. I wish to observe here, that Professor Meigs claims only to have found that "women, sustained by cheering counsel and promises, and carefully freed from the distressing element of terror, could, in *general*, be *made to endure* without GREAT complaint." A proposition so carefully guarded and limited by provisions and conditions, that its apparent force is very materially weakened to the careful reader. The first extracts, however, were written before the Anæsthetic innovation was dreamed of, even by the most sanguine; and Prof. Meigs, in his later position, as "a familiar and dispassionate witness," may, in the words of a distinguished Illinois Senator, "object to bringing in issues of individual consistency." But until he reconciles his dicta, or shows ground for the rejection of his former teachings, endorsed by the profession, and harmonizing with the views of all leading authorities, we must admit Labor-Pain to be as severe, and injurious, and as legitimately the object of the physician's concern, as the pain caused by any other, the most purely *pathological*.

Well, but, says Prof. Meigs, the patient's ability to counsel the operator in instrumental cases, is too valuable to be abrogated; the "patient's answer, 'yes' or 'no' to the accoucheur's query 'does it (the forceps) hurt you?' is worth a thousand dogmas and precepts as to planes and axes and curves of Carus." To treat this argument seriously, would be to impeach the skill and intelligence of Prof. M., as it would that of the Surgeon, who should appeal to the feelings of his patient to enable him to distinguish between the artery he was ligating and its attendant nerve. And without any attempt to show the worthlessness of a guide, predicated on the feelings of a woman, whose "mind is strained to the highest tension," and who requires "good intervals of rest," for her "moral relief," I am inclined to believe with Prof. Simpson, that if this

in Exodus I, 19, as pertinent here: "And the midwives said unto Pharoah, Because the Hebrew women are not as the Egyptian women; for they are lively, and are delivered ere the midwives come in unto them." A Scriptural proof of much more weight than that cited by Prof. Simpson of Adam's sleep while his rib was removed—and which latter, by the way, had occurred to me before seeing Prof. S.'s allusion to it; but was set aside, notwithstanding the subsequently met testimony of Luther,—that the sleep was induced to prevent Adam feeling any pain—on the ground that the incident occurred before the fall, and before Sin, Pain and Death had entered the world—a fact, which all commentators, so far as I know, overlook.

But to return from this digression. I take up the counts of the second head, viz: *The danger and evil results of Anæsthesia.*

It would be too tedious to enumerate all the evil results that have been attributed to this practice:—flooding, convulsions, tardy recoveries, effusions, poisoning of the child, even puerperal mania, and idiocy, with many other equally monstrous and absurd charges—the simple and conclusive refutation of which is to be found in the entire absence of any kindred charge in Surgical Anæsthesia, and a detailed disproof of which is here unnecessary, if not impracticable.

The final and gravest objection to Anæsthesia in Midwifery is, that of Danger of Fatal Results, one indeed, not strongly pressed at the present day, but still embodied in Prof. Meigs' latest editions; and to give a show of reason for which, the learned writer makes use of a piece of special pleading, which would not discredit the reputation of the far-famed Philadelphia bar, to-wit: "I readily hear, before your voice can reach me across the Atlantic, the triumphant reply that an hundred thousand have taken it without accident. I am a witness that it is attended with alarming accidents, however rarely. But should I exhibit the remedy for pain to a thousand patients in labor, merely to prevent the physiological pain, and for no other motive—and should I in consequence destroy only one of them, I should feel disposed to clothe me in sack-

cloth and cast ashes on my head for the remainder of my days. What sufficient motive have I to risk the life or death of one in a thousand, in a questionable attempt to abrogate one of the general health conditions of man?" This is copied from his letter to Prof. Simpson, before referred to. It will be observed that Prof. Meigs starts out with the assumption that it had been used in an hundred thousand cases without accident; Prof. S. in his letter, to which this is a reply, distinctly states that "no accidents have as yet happened under its use, though *several* hundred thousand must have already been under the influence of chloroform." Prof. Meigs then goes on to reduce the number of cases to one thousand, and finally winds up with the assumption that one death occurs in a thousand, and queries what right he has to risk that—a mode of argument befitting a jury lawyer more than a grave professor discussing a medical question. The objection and the argument, however, is best met with the stubborn fact that despite the jealous watchfulness of Meigs, Ramsbotham, Arnott, Lee, and the numerous lesser lights of its opponents, but two deaths from chloroform, not one from ether, and not one from either chloroform or ether, administered by a medical man, in midwifery, are yet recorded. And the use of these agents may be stated in round numbers at 20,000,000 cases in the United States, Great Britain, France and Germany, in the last twelve years!

Can any more convincing proof of the groundlessness of the charge of Danger, be produced or demanded?

Prof. Ramsbotham has, indeed, claimed to have discovered one fatal case by the use of chloroform in the hands of a physician; but the proof is so decidedly against this, as the cause of death, that no one else has been found willing to cite it; and I doubt much if Prof. R. himself, would now urge it. Dr. Snow, to whom I refer for a report of the case, arrives at the conclusion that chloroform had nothing, whatever, to do with the death; inasmuch as the patient had been successfully anæsthetized in two previous labors, had fully recovered from the chloroform, in the one before her death, and was comfortable, conversed with friends, etc., for an hour and a

even life itself, as does the use of the latter, and which is the true objection to the use of all alcoholic fluids—"good Bordeaux wine," "sherry and port" included,—if this be the only point of resemblance, then the argument is equally valid against all the agents of the *Materia Medica*, whose province it is to annul pain, obtund consciousness, and produce sleep. Dr. Murphy, quoted above, contends that the argument is as valid against Nature herself—since she deprives us of consciousness each night, and "when the agonies of childbirth become so intense as to be no longer tolerable, sometimes induces that complete state of both unconsciousness and anæsthesia, called puerperal convulsions."

Under the head of Impropriety, comes also, the religious objections, presented by Prof. Meigs in the following language: "I have by no means said what I am inclined to say, as to the doubtful nature of any processes that the physician sets up, to contravene the operation of those natural and physiological forces, that the Divinity has ordained us to enjoy or to suffer."

Without endorsing Prof. Simpson's elaborate and scholarly argument in answer, based, as it is, on philological erudition which I do not possess, and which is, to say the least, made questionable, by the translation and commentary on the passages of Scripture discussed by Prof. Simpson, in the recent works of the eminent Dr. Kalisch, and by Prof. Noyes, of Cambridge, both high authorities in Hebrew, I do not hesitate to avail myself of reasonings and facts cited in support of other views.

Most prominently in this connection, arises the question, what is a truly Natural Labor; and if we accept the definition of Prof. Miller, "one, in a good degree, free from such pain as we are accustomed to witness," I am unable to see the contravention of any Divine ordinance in the induction of any process which shall annul that extra degree of pain which makes labor unnatural; and which is the joint result of the unnatural condition of the woman of to-day, produced by "the hot-beds of civilization," and the increased development of the skulls of civilized races; a development, not participated

in by the pelves of the women, if indeed, they be not positively contracted by modes of dress, habits of life, etc. How else can we account for the immunity of the female barbarian from such pain as her civilized sister is bade to endure as a Divine decree?

To sum up the counts of the first head, and our answers, we have first: Labor-Pains alleged to be conservative, salutary and desirable; and an essential element of the function of parturition. Disproved by the brief analysis of the office of Pain, and by extracts from Prof. Meigs' own writings. *Per contra*, I have shown these pains to be useless, objectionable, and, in some cases, positively pernicious; and the distinction between Pains created by Prof. Meigs to meet the emergency, as fanciful and unphilosophical—doing more credit to his ingenuity, than to his scientific reputation.

II. The inability of the anæsthetized patient to counsel the operator in the use of the forceps. Very fully overbalanced by her restlessness, unanæsthetized, causing accidents painful and tedious of recovery—to say nothing of the ignorance and untrustworthiness, implied in the operator who should rely on such a guide, or of its unreliability, owing to the mental condition of the patient at such times, and the variety of degrees of endurance in various women.

III. Moral objections to Anæsthesia, on the ground of its similarity to alcoholic drunkenness. Similarity shown to be only in a minor physical point, and in nowise bearing a resemblance to the immoral sequelæ of alcoholic intoxication.

IV. Religious objections to the process, as contravening the primal curse. Shown to arise from a narrow, unphilosophical view of the subject—which ignores the facts that civilization has thus far, increased the size of the fœtal head, and reduced the bony system of the mother in a varying ratio; that barbarous and semi-civilized tribes, and now and then, individual cases in the most highly-civilized races, are exempt from that degree of suffering in labor, which makes the process, according to Prof. Miller, unnatural. Much is omitted in this, as in other sections, from want of time, and fear of prolixity, but I cannot refrain from alluding to the fact mentioned

the physician who, holding such views, yields to the solicitation of his patient, is as morally guilty of compounding a felony, even though no bad results ensue, as is the professional outcast, who consents to produce an abortion, under the same influence.

If he withholds it generally, from a confused, uncertain idea that it is dangerous, and yet yields to the pleadings of his patient, upon whom he fancies he thus throws the responsibility, then I claim that he is derelict in his duty, and in the fullest, truest sense, is not a Physician, but a tamperer with the holy science. And I envy not that man, be his professional position what it may, who through indecision or lack of investigation, is content to stand idly by the bedside, a dispassionate witness of pangs indescribable, agony incomparable, at a time when the highest, holiest, most mysterious sympathies of our nature should be evoked—the advent of an immortal soul into the world.

If the miraculous vapor be Divine in its mission at any one time more than another, it is not when the crushed and mangled victim lies helpless upon the operating table, when the cruel steel is poised in hand, previous to its terrible passage through the fair, white skin, the shrinking muscle and the quivering nerve. But when, with sorrow greatly multiplied, they that travail in child-birth, through this, the triumph of man's skill and study, are relieved of the curse, then, indeed, is man more godlike, and Anæsthesia a true *Donum Dei!*

NOTE.

I deem it proper, in submitting the above, to state that I had contemplated, originally, a very different treatment of the subject, viz: An examination of the Physiology of Anæsthesia, with a view of elucidating the phenomena of its occasional fatal results. And to this end I had devoted considerable time and research to the Necrology of Anæsthesia; when, finding the subject beyond my depth, and demanding an amount of labor in study and experimentation, which the duties of the lecture term forbade, I determined upon the course, the results of which are herewith given, with no little diffidence and misgiving.

My first plan involved the collection and analysis of all the fatal cases on record—something under one hundred—but scattered *passim*, as they are over the current literature of twelve years, the undertaking was greater than it at first seemed; and was rendered doubly difficult by the very incomplete condition of the Medical Libraries of this city. Another source of information—that by correspondence—was only partially availed of, when I saw the reasons for changing my design.

I cannot, however, forego this opportunity (limited, though its publicity may be, by the dusty obscurity of the shelves of the College Library,) of acknowledging the kindness of those gentlemen who have favored me with the results of their own experience; chief among whom, allow me to gratefully mention the worthy colleague of Prof. MEIGS,—SAMUEL D. GROSS—two names which have received the highest encomiums of the profession, as first among the foremost in Obstetrics and Surgery.

I take the liberty of appending a copy of Prof. Gross' letter:

PHILADELPHIA, *Dec. 15th*, 1860.

DEAR SIR:—

I answer your letter of the 10th instant, with much pleasure.

You ask me, in the first place, why I “do not inhibit the exhibition of Chloroform in cases of organic lesions of the heart and lungs, more especially, the former.” To this I reply: first, because I have never witnessed any bad effects from the use of it under such circumstances; and secondly, because there can be no impropriety in giving such a remedy when the malady is not so great as, in itself, to forbid operative interference. Chloroform, if of good quality, and judiciously administered, never produces any serious influence upon the action of the heart and lungs. The rule is, always to promote the free introduction of air into the respiratory passages.

I answer, in the second place, that no fatal case from the effects of chloroform has ever come under my observation. In one instance—that of a lad mentioned in my *Surgery*—the patient was nearly asphyxiated from an over dose of chloroform from inhalation while in the recumbent posture; and in another, he was nearly an hour in recovering from the effects of the remedy, although he was kept constantly on his back,

half before feeling any distressing symptoms, and finally that these (symptoms) “did not coincide at all with the known effects of chloroform.”

Of the two other cases, the exceptions I have mentioned above to the innocuousness of Anæsthesia in Midwifery, both occurred in the hands of non-professional persons. The first, in 1855, in England, was the result of its induction by the patient herself, against the advice of her attendant; five drachms were used and the inhaler (a handkerchief), remained in close contact with the patient's face until death ensued. The other case occurred in Scotland, in 1858; the chloroform was administered by her husband; “on giving it probably for the fourth time, she threw herself violently back, gave a gasp or two, a slight gurgle was heard in her throat and respiration and the pulse instantly ceased.”

I have quoted details in these cases (the former from Dr. Snow's report, the latter from Dr. Campbell's statement to Dr. Lee), for the purpose of future reference; meanwhile in view of the fact that not a single death can be traced to the use of chloroform or ether administered by medical men in (estimated) 20,000,000 obstetrical cases I assert that this last, most serious charge is utterly devoid of foundation; and defy a similarly favorable record to be produced for any other equally powerful agent of the *Materia Medica*.

To resume then; if anything, I have proved,

1st. That the hostility to Anæsthesia in midwifery is due, mainly, to the efforts of a learned, eloquent and influential opponent, early committed to his antagonistic position, and too fixed in opinion to even re-examine the subject.

2d. That the objections are alike unsound in theory, and unfounded in fact; in proving which latter I have also shown incidentally that

3d. Anæsthesia in midwifery is desirable, useful and proper; for that it annuls pain, which, being an evil, abnormal, in this instance useless, and productive, in itself, of mischievous consequences, even to death itself, is the legitimate object of the physician's hostility. And,

4th. That it is perfectly safe, and free from annoying or dangerous sequelæ.

In the foregoing pages I fear I may have, now and then, appeared to overstep the bounds of that deference and respect, which none more readily than myself would observe, as the just meed of the tutor from his pupil, of Learning and Wisdom from Ignorance and Inexperience. And yet no writer whom it has been my good fortune to peruse, more uniformly or more strenuously insists on the right and duty of the student to criticize and dissect the precepts of his author, than Prof. Meigs; and in no other section, than in this upon *Etherization*, does he speak more directly to the student, or leave more questions for the student to examine and settle for himself. In availing myself of this right and duty, I have been actuated solely, I trust, by a desire for the truth, influenced only by a wish to render some service, however slight, to the cause of humanity, in the abolition of human suffering; and I desire, before closing, to place in the same record, an expression of my deep sense of respect and admiration of Prof. Meigs, as a devoted, enthusiastic lover of his profession, a sedulous, untiring student, and a writer, the most fascinating and instructive.

In closing this effort, I cannot overcome a feeling of disappointment and regret at the crude, disjointed character of an appeal in behalf of a practice, which, though its array of facts is overwhelming and indisputable, still needs all the eloquence and genius which its opponents have lavished in its assault, to resist their attacks, and counterbalance the sentiment they have created against it.

The history of Anæsthesia presents an anomaly, most singular and deplorable, in its comparative exclusion from midwifery, while so universally resorted to in surgery. And the fact that, of all the physicians whom I have questioned upon the subject, I have not met one who refuses to employ these agents when insisted upon by patients in labor, is *prima facie* evidence, to me, that the mind of the medical profession is not clear and decided upon the subject. And yet see the dilemma this places them in!

If Prof. Meigs and his followers be right in their views, the exhibition of chloroform and ether is pernicious and improper to a degree which warrants its positive denial; and

both during and after the operation. Doubtless, the patient should never be permitted to sit up during an operation when he takes chloroform; at all events, my invariable practice is to make him lie down until the effects of the anæsthesia have, in great degree, if not wholly, disappeared.

There are, according to my experience, five cardinal rules for the administration of chloroform; and when they are properly observed, there is, I presume, little, if any, danger to be apprehended from the use of the remedy. These rules are as follows:

1. The selection of an unexceptionable article, such, for example, as that manufactured by Dr. Squibb. Formerly I used nearly altogether the Edinburgh chloroform, but I believe that the American is quite as pure, and consequently, as safe.

2. The free admission of atmospheric air along with the anæsthetic; the administrator giving the subject his undivided attention while the inhalation is in progress.

3. An empty state of the stomach, and a moderately empty state of the bowels. For this purpose, the patient should not take any food for six or eight hours, prior to the operation. If the bowels are loaded, a purgative should be administered the previous evening.

4. An absence of all constriction of the chest and abdomen, so as to admit of the free play of the diaphragm and intercostal muscles.

5. Complete recumbency during the administration, not allowing the patient to rise, on any account, whatever.

If these rules be carefully observed, my conviction is, that it would be extremely difficult to kill a person with chloroform, even when there is considerable organic lesion of the heart and lungs.

With kindest regard,

I am, dear sir,

Very truly, your friend,

Dr. F. W. REILLY, *Chicago.*

S. D. GROSS.

To the above rules nothing can be added, it seems to me, save a more emphatic repetition of No. 2. I feel quite convinced, in my own mind, and design, at some future time, to attempt the proof, by data already partially collected, that deaths by the inhalation of chloroform, may be divided into two, or at most, three classes; the first of which, and the most important, includes those resulting from a spasmodic closure of the glottis, produced by the action of the undilute

vapor—a condition not difficult to realize in the recumbent position, with the pure vapor falling in a heavy volume through the half-inch or so of space most administrators seem to think sufficient; and I am led to suggest, after repeated experiment, the doubt whether, after all, the position on the back is the safest under all circumstances; and to query if it will not, eventually, be found advisable to place the patient upon his *side*, in the first steps of the process. Chloroform vapor is very much heavier than atmospheric air; and though diffusible, is not permeable—by which, I mean, that though it will mix with atmospheric air, in all proportions, yet this latter will not penetrate a stratum of the vapor, without mechanical disturbance. Any one may test for himself, without trouble, the effect of the first inhalation, and the marked comparative ease with which it subsequently proceeds, until it becomes necessary to renew the supply. The irritation subsides with each succeeding inspiration, partially owing to the force of habit, but mainly because the vapor is more and more dilute with every additional breath, until entirely exhausted. While the supply is being renewed, a few seconds intervene, during which no vapor is inhaled at all,—the glottis returns to its normal sensitive condition, and is as liable to spasmodic closure against the offending agent as at first. And, now it seems to me, is the true moment of danger: The administrator, emboldened by this first experience, stimulated, too frequently, by his own desire to cut short the noisy, intoxicated stage, and by the impatience, often, of the Surgeon to proceed with the operation, applies the freshly saturated cloth, sponge, or what not, still more closely to the patient's nostrils. Regarding the struggles of the latter, should he be able to make any, as merely the manifestation of his intoxication or perverseness, he follows every motion of the head closely, or holds it fixed with his hand; the heavy column of chloroform falls pure and unmixed into the nostrils; respiration ceases for a few fatal moments, and when the spasm relaxes, the nerve centres are overwhelmed, the circulation, already languid and charged with carbonic acid, bereft of its stimulus, flags—and the patient is dead! These, I have no doubt, were the phenomena in the case related by Dr. Campbell, referred

to in the *Thesis*; also in the first Bartholomew Hospital case, and in many others whose details I have carefully studied. I am further convinced of the soundness of this view from personal experiment,—of which more, possibly, anon.

The practical deductions from this are, that “*free admission of atmospheric air along with the Anæsthetic,*” is of the FIRST AND UTMOST IMPORTANCE. That the undivided attention and intelligence of the administrator is necessary; no consideration of expense either of time or for chloroform should be allowed to enter into the calculation; better far, spend fifteen minutes more with each of a thousand patients, if you thereby insure their individual safety, than save that time to nine hundred and ninety-nine, at the expense of the life of the thousandth.

To insure this *gradual induction*, I believe the position on the side, most favorable; the nose being, say, two to two and a half inches from the pillow, the inhaler held above the line of the nostrils, at a distance, never less than an inch and a half, and better two inches above. The vapor is thus not alone mixed with the atmosphere by the mechanical disturbance of the breath, driven through it, but only that vapor obtains access which is *drawn in*, none being allowed to *fall* into the mouth and nostrils of its own specific gravity, as is the case when the position on the back is assumed. With these precautions, the induction of Anæsthesia may require double the present ordinary time; but its safety must be materially increased.

ACCORDING TO DR. FISCHER, a glass of wine taken 15–30 minutes before chloroform, will entirely prevent the vomiting so often troublesome after inhalation. Perhaps, he adds, the dangers may also be lessened by this simple means. [We feel bound to confirm Dr. F.’s positive statement to some extent, having frequently with great benefit administered wine before producing anæsthesia. The desired effect seemed in all cases to be produced more quickly and safely, (*i. e.*, with a smaller quantity of the anæsthetic,) and though we had not directed special attention to the vomiting afterwards, we do not remember that it ensued in a single one of these cases. Our experience in this respect is further borne out by that of a friend, a dentist, of this city.]—*Dr. L. Elsberg, Foreign News Compiler, American Medical Monthly.*

The Clinique.

NOTES OF SURGICAL CASES.

By E. ANDREWS, M. D.,

PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF LIND UNIVERSITY, ETC.

SURGICAL WARDS, MERCY HOSPITAL.

CASE 1st.—*Excision of the Head of the Femur.*

M. M., aged ten years, was attacked a year ago by an inflammation of the left hip joint, which seemed to be rheumatic in its character. Being skilfully treated by her attendant—Dr. Fox, of Lyons, Ill., she apparently made a perfect recovery. About six months afterwards, she was attacked with a malignant diphtheria, through which she was carried also by the skill of Dr. Fox. The diphtheria, however, left her in a very enfeebled and cachectic condition. The hip joint took on a new inflammation, and one of different character from the previous attack. The case soon assumed all the appearances of hip disease, and progressed with great rapidity. In a short time pus was effused, and a discharge of half a pint every day, soon reduced the patient to the verge of fatal exhaustion.

Under these circumstances, the immediate removal of the carious bone was decided to afford the only chance of life. For this purpose a mixture of chloroform and ether was given, to anaesthesia, and the diseased part laid open by a single incision of four inches parallel to the shaft of the femur. On introducing the finger, the acetabulum was found to have entirely lost all definite boundaries by absorption of its rim. It was converted into a broad shallow fossa, and was half filled with granulations. I find this state of the cavity in a large portion of all the cases of hip disease which come under my care for operation. The head of the femur was carious, denuded of cartilage, and lay with its rough burr-like surface in contact with the flesh on all sides. With the chain saw I removed the head and neck of the bone, and closed the wound with a

single adhesive strap. There was no material hæmorrhage, and the patient awoke from sleep without manifesting a particle of shock from the operation.

One beneficial result of the removal of the diseased bone was an immediate diminution of the suppuration, and of the pain upon moving the limb. The next day the patient was put upon the free use of the mur. tinct. of iron as a tonic, and as a prophylactic against traumatic erysipelas, and now—ten days after the operation, is doing remarkably well.

CASE 2d.—*Fistula from the Hip Joint into the Rectum.*

A. A., a little girl of twelve years, appeared in the third stage of hip disease. The limb was shortened, and a free discharge of pus was exhausting the patient. I excised the superior extremity of the femur in the usual manner, and removed with the gouge, some suspicious portions of the ilium. This afforded great relief from pain, and diminished very much, the suppuration; but still, for eight months the wound refused to heal. At length I ascertained that the patient was daily passing flatus from the external wound. This strange occurrence prompted an effort to trace out the passage with a probe, but the tortuous direction which it pursued, rendered it impossible to follow it into the rectum. Soon afterwards, the patient had an abscess on the inner side of the thigh. This being lanced, gave exit to pus and wind, and the flatus was henceforth discharged from that orifice. I ascertained that water injected into the rectum ran out in this route, and that the fistulous track crossed the posterior part of the tuber ischii. Administering chloroform and ether to insensibility, I passed a probe up the fistula as far as the ischium, and feeling for it through the skin, cut down upon it. Withdrawing the probe, I inserted at the wound, a blunt pointed bistoury, carrying it along the fistula until I received the end of it on my finger in the rectum. I then divided the sphincter in the usual method.

The result of this operation was that the opening on the outer side of the thigh immediately began to heal. This is the only instance which I ever heard of, where a *fistula in ano* opened upon the outer side of the thigh.

The operation of excision of the hip joint, which has of late, risen so rapidly into favor, is certainly less dangerous in this locality, than it would seem to be at the East. The report to the American Medical Association, shows a mortality of about thirty per cent., a large proportion of which was from erysipelas in its various forms.

In this city the results are certainly better, for I have within twelve months operated upon seven cases, and all the patients are now living. Only one is in any danger, and that is in consequence of a pre-existing chronic diarrhoea. Not a single instance of traumatic erysipelas has occurred. My escape from this horrible complication, I attribute to the fact that I have in every instance, administered freely, the muriated tincture of iron as a prophylactic. I do not wait to see evidences of the disease, but commence giving the remedy on the second day after the operation.

Splints for Hip Disease.—Very excellent splints to keep up extension in hip disease have been devised by Drs. Davis and Sayre, of New York. These are used in all stages of the disease. In the early months of the attack, the extension takes away the pressure of the inflamed head of the femur in the joint, and allows it to recover. After an operation, it is used to prevent too great shortening while the end of the femur is contracting a ligamentous adhesion to the side of the pelvis.

Sayre's splint is applied to the outer side of the limb, and supports the body by a perineal band, and is attached to the side of the leg, just above the ankle, by spiral adhesive straps.

There are, however, some imperfections about this excellent instrument.

The principal of these is the fact, that it is applied to the outer side of the limb, and hence, comes directly over the ulcer, which remains for a time after the operation. The ulcer is apt to be injuriously pressed upon, and the padding of the splint becomes fouled with the discharges.

Before Sayre's splint came to my notice, I had already devised one, which, after considerable experience, I am disposed, decidedly, to prefer: It is applied to the inner, instead of

the outer side of the limb, and is therefore, quite out of the way of the wound of the operation. The top supports the perineum by a crutch piece, padded and covered with patent leather, and the bottom is attached firmly to the sole of the shoe, and at each step transmits the weight of the body directly to the ground. The extension is made by a screw working in a tube. If the limb requires to be kept well down, it is done with the utmost comfort by means of broad adhesive straps applied to each side of the leg, as in cases of strap extension in fracture, and tied under the shoe, or buckled to its side.

The price of the whole is five dollars; (that of the Sayre's splint, fifteen dollars.) They can be made in this city to order, by simply sending a measure of the length of the patient's foot, of the distance from the perineum to the sole of the sound foot, and a statement of whether the disease is on the right or left side.

MARINE HOSPITAL.

DR. ISHAM'S CLINIQUE.

Reported by STACY HEMENWAY, Student of Medicine.

B. C., aged 40, admitted April 9th; seven days previous to commencement of Prof. Isham's service.

The disease with which this patient was afflicted for more than a year, consisted of an eruption of small patches of minute vesicles about the size of a pin's head, each surrounded by a shining red areola, and in places, assuming the character of a papular eruption caused by the scratching of the patient, to allay the intolerable itching at night, when warm in bed. This eruption covered the extremities and was chiefly confined to them. In places, a laminated crust was formed over the vesicles from the exuded matter; in others it was excoriated, and successive crops seemed to appear.

His treatment had been the internal use of Fowler's Solution, and the local application of equal parts of Citrine

Ointment, and Simple Cerate. This was changed on the 17th, to the following :

R

Zinci Oxidi,	5iss
Amyli,	3ij
Glycerin,	f3j
Chloroform,	f3ss

M. S. To be applied to the affected parts at night ; also the skin to be kept saturated during the day time with a solution of Bicarbonate of Soda (3ss to Oj of water) through the medium of cloths applied to the parts and covered with oil silk so as to prevent evaporation. The internal use of the following was also prescribed :

R

Magnes. Sulph.		
Pot. Bitart.,	āā	3j
Aquæ,		Oj

M. S. A wine glass full every hour.

April 19th, condition of patient much improved. The indurated parts have begun to soften, and the skin begins to present a healthy appearance; the itching is entirely controlled by the treatment.

He was directed to take internally a solution of Pot. Iodidi 3j to f3iv of water in tablespoonful doses, every three hours, and to continue the external treatment.

Monday, April 29th.—Discharged completely cured.

It was remarked that in hospitals when the treatment can be enforced and strictly followed, the results of such cases were very satisfactory, but that in private practice it was a matter of the greatest difficulty, to persuade a patient to keep sufficiently quiet to secure a proper application of the lotion, and still more difficult to impress upon him the idea that constant moisture is necessary; hence the cure is frequently begun but never completed.

To avoid the irritating effects of "greasy" applications, Prof. Isham is accustomed to prescribe the use of sulphate of zinc, combined as directed in the formula above, in which the starch with the Glycerine makes an emulsion which is not "heating" as the usual ointments are, and of which patients complain, whilst the chloroform allays the hyperæsthesia of the

skin. This is applied with friction by the hand; but any treatment is useless unless the patient avoids excitement of the circulation, and wears next to the skin some non-irritating and loose fitting garments.

He also stated that in his experience, the use of Citrine Ointment in such cases seemed to aggravate the disorder.

II. There was presented a case, Pityriasis versicolor, of which the patient had been complaining for three weeks, covering the chest, upper extremities, armpits, and nearly the whole abdomen. It was characterized by the usual yellow color, excessive itching, furfuraceous desquamation, and in the groins by an altered and inflamed condition of the skin.

A lotion of Sulphurate of Potash, and the internal use of powders of Rhubarb, Ipecac and Soda, were prescribed.

III. P. G., aged 33; Scotland; married; of temperate habits; applied at the Hospital for relief, May 18th.

No hereditary tendency to tubercular disease could be traced in his history. *He describes three attacks of rheumatism he has had in the last four years.*

The first commencement of his present difficulty he attributes to a "a sprain in the chest" he experienced on board a vessel whilst reaching to grasp a rope, three years ago. Shortly afterwards he began to experience severe pain in the right infraclavicular region, which continued steadily for eighteen months, when, in addition to this, he began to suffer from pain in the same region of the left side,—about this time, he became troubled with shortness of breath, whenever he made any unusual exertions, but had no cough. These symptoms continued without much change until twelve months ago, when they were aggravated by a cough, most severe when lying down, and occasionally accompanied with a frothy white expectoration. Last September, the cough became much worse, accompanied with expectoration of blood, at first in clots mixed with a little mucus, and afterwards pure *florid* blood; and this hæmoptysis lasted for eight days. About the 1st of November, the cough began to gradually cease, and again, about the 1st of January, his symptoms became so se-

vere as to confine him to his bed for eight weeks afterwards; the pain being very great across the upper portion of the chest and in the arms, accompanied with fever, dry cough, loss of appetite, and emaciation.

He subsequently improved a little, gained some strength, but the pain and cough, with difficulty of breathing, became much exaggerated in March, and still continues.

He says he is unable to lie on the left side, but does not cough so much at night as he did previously, and the expectoration is mostly white and opaque. He complains of palpitation of the heart, and says he has been subject to it for four or five years, but it has become more constant and troublesome of late; countenance anxious, as one suffering pain; lips bluish; respiration labored and difficult; pulse 130, feeble; appetite poor.

Physical Examination, First—Inspection.—The chest is not symmetrical in its proportions, but presenting from the summit of the sternum nearly to the ensiform cartilage, and most markedly on the left, a preternatural fullness, which is seen to pulsate. The apex of the heart beats immediately below the left nipple in the sixth intercostal space. The chest readily expands upon forcible inspiration in a normal manner.

The right infraclavicular region is somewhat more sunken than the left.

Second—Palpation.—Upon placing the hand over the prominence before mentioned, a decided hammer-like impulse is imparted to it synchronous with the beating of the heart, and accompanied with a rasping sensation, (*fremissement*.) This can be partially felt just over the sternum, by flexing the head of the patient and forcing the fingers behind it. Vocal vibrations are felt throughout the chest.

Third—Percussion.—In the sternal region throughout its entire length, and laterally, an inch from either border, comprising the prominence of the tumor, is dulness amounting to flatness. There is also dulness on percussion under the right clavicle.

The dullness of the left chest anteriorly, commences at the third rib and extends downwards two inches below the left

nipple and outwards to a line two inches beyond it. Posteriorly: The right chest is normal on percussion, but the left is dull in the supra and infra-scapular regions—otherwise percussion is normal.

Fourth—Auscultation.—The respiration anteriorly, throughout the right chest is puerile, and at its summit approaches in character to that of bronchial, but no moist sounds, broncophony or pectoriloquy, but the attention is attracted by a peculiar churning noise, (*brûit de soufflet*.)

Left chest, anteriorly, respiration weak, (distant); and occasionally accompanied with subcrepitant râles. Under the upper third of the sternum, in addition to the impulse, is heard a double-bellows sound, not unlike an aneurismal bruit.

The apex of the heart gives to the ear the hammer-like impulse before mentioned, and also the two sounds of the heart in such rapid succession that no appreciable interval can be detected, with a slight bellows murmur, commencing with the first sound, but *most distinct* over the *base*. The respiration of the right side, posteriorly, presents no marked peculiarities except being puerile; upon inspiration, the left chest gives some moist sounds.

This double-blowing sound before noticed, is not to be confounded with the sounds of the respiration through the trachea, modified by the impulses of the tumor against it.

Diagnosis.—Hypertrophy of Heart; insufficiency of the Aortic valves; and aneurismal dilatation of the arch of the Aorta.

In commenting upon this case, the Professor dwelt upon the affections of the heart and their frequency, as the sequelæ of rheumatism, and especially the insidiousness with which they sometimes approach, as illustrated by the history of this patient—especially when the affection begins in a valvular disease as was probably the fact in this case, though the physical signs are always present to the practiced ear. The patient apparently recovered from his rheumatic attack, suffered no disturbance from his cardiac disease, except palpitation upon unusual exertion, until finally the whole train of cardiac disease, dyspnæa, pain, and constant palpitation were developed

from an hypertrophy of the organ, leading rapidly to a fatal result. He insisted, from these facts, that the physician should never rest satisfied that the heart is uncomplicated in cases of inflammatory rheumatism *because* the patient makes no complaint of *pain in the præcordial region* : the heart should be examined daily. He dwelt upon the pain in this case, (angina pectoris,) as a continued symptom, and accounted for it upon the hypothesis that the inferior cardiac branch of the right pneumogastric had become entangled in the tumor at an early period, subsequently the same thing upon the left side, and reminded the class that the pain from irritation of a nerve is referred to its periphery, and oftentimes to distant parts through its communicating branches.

In describing the value of the physical signs of this case, the differential diagnosis between obstruction of the aortic orifice and imperfect closure of it, was explained as in the one accompanying or masking the *first* sound of the heart heard over its base, and transmitted upwards along the aorta, and in the other heard in the same place, but masking the *second* sound of the heart ; is a sound of regurgitation ; is softer and shorter, and seldom, as in this case, heard as far as the apex.

In reference to the hæmoptysis, he called attention to the length of time which had elapsed since its occurrence, and to the case of the celebrated surgeon, Mr. Liston, who died of aneurism five months after the first gush of blood from the trachea, and to another case reported by Dr. Gardner, of Edinburgh, in which hæmoptysis occurred four years and eight months before death ; concluding by saying that in this case, it giving no positive evidence of phthisis upon a critical examination, and presenting no proof of disease of the larynx or laryngeal phthisis, and with the positive signs here presented, even in the absence of a tumor, aneurism could be diagnosticated with certainty.

IV. C. C. O., aged 25 ; applied for relief May 8th. The evening previous, he received an injury from the fall of a tackle block, thirty feet, striking him upon the left shoulder. He suffered considerable pain, and the parts presented upon examination, a good deal of swelling and ecchymosis, and a

noticeable flattening of the deltoid. After a complete examination, fracture of the acromion process was diagnosticated.

It often happens, said the Professor, that the surgeon may hesitate respecting the existence of fracture of this character, and a dislocation into the axilla—the physical signs apparent to the eye, in both cases are identical, so that when the shoulder is contused and swollen by the injury, as at present, the diagnosis is difficult and delicate. This may be simplified by the following points :

1st, In *dislocation* the deltoid can be crowded under the acromion.

2d, All normal conditions are impeded or abolished.

3d, The limb is longer than natural, and we feel for the head of the bone, in the axilla.

In *fracture* we may detect crepitation with care, and the movements of the arm are not restricted. A simple and easily discovered symptom, will always enable you to recognize this fracture with certainty, whether swelling exists or not:—*by raising the arm* with the forearm flexed, we *correct* the flattening and depressibility of the shoulder, restore its contour, determine crepitus, whilst the *deformity is re-produced* at once, when the limb is left unsupported.

TANNIN AN ANTIDOTE OF STRYCHNIA.—Dr. Kursak concludes, from numerous experiments on dogs and rabbits, that the prompt exhibition of tannin is the safest and most efficient remedy for poisoning by strychnia. The quantity of the antidote should be proportionate to the amount of the poison which has been taken, and even somewhat exceed the latter, inasmuch as the contents of the stomach are liable to absorb a portion of the neutralizing agent. For every grain of strychnia, about two drachms of gall-nuts, or more in case of vomiting, should be prescribed. Green tea also appears to possess a certain degree of efficacy, but only when the quantity of poison is very small. Oak-bark, acorns, etc., are convenient and active substitutes for pure tannin. But vegetable acids should be prohibited during the treatment, as they promote the dissolution of the precipitates thrown down under the influence of the tannic acid—the same exception applies equally to fermented liquids; and muscular efforts which induce convulsive action, in persons poisoned with strychnia, should likewise be carefully avoided.—*L'Union Médicale*.

Selections.

DIRECTIONS TO ARMY SURGEONS ON THE FIELD OF BATTLE.

BY G. J. GUTHRIE,

SURGEON-GENERAL TO THE BRITISH FORCES DURING THE CRIMEAN WAR.

(From The London Lancet.)

1. Water being of the utmost importance to wounded men, care should be taken when before the enemy, not only that the barrels attached to the conveyance-carts are properly filled with good water, but that skins for holding water, or such other means as are commonly used in the country for carrying it, should be procured and duly filled.

2. Bandages or rollers, applied on the field of battle are, in general, so many things wasted, as they become dirty and stiff, and are usually cut away and destroyed, without having been really useful; they are therefore not forthcoming when required, and would be of no use.

3. Simple gun-shot wounds require nothing more, for the first two or three days, than the application of a piece of wet or oiled linen, fastened on with a strip of sticking-plaster, or, if possible, kept constantly wet and cold with water. When cold disagrees, warm water should be substituted.

4. Wounds made by swords, sabres, or other sharp-cutting instruments are to be treated principally by position. Thus, a cut down to the bone, across the thick part of the arm, immediately below the shoulder, is to be treated by raising the arm to or above a right angle with the body, in which position it is to be retained, however inconvenient it may be. Ligatures may be inserted, but through the skin only. If the throat be cut across in front, any great vessels should be tied, and the oozing stopped by a sponge. After a few hours, when the oozing is arrested, the sponge should be removed, and the head brought down towards the chest, and retained in that position without ligatures; if this is done too soon, the sufferer may possibly be suffocated by the infiltration of blood into the areolar tissue of the parts adjacent.

5. If the cavity of the chest is opened into by a sword or lance, it is of the utmost importance that the wound in the skin should be effectively closed, and this can only be done by sewing it up as a tailor or a lady would sew up a seam,

skin only being included; a compress of lint should be applied over the stitches, fastened on by sticking plaster. The patient is then to be placed on the wounded side, that the lung may fall down, if it can, upon, or apply itself to the wounded part, and adhere to it, by which happy and hoped-for accident life will in all probability be preserved. If the lung should be seen protruding in the wound, it should not be returned beyond the level of the ribs, but be covered over by the external parts.

6. It is advisable to encourage previously the discharge of blood from the cavity of the chest, if any have fallen into it; but if the bleeding from within should continue, so as to place the life of the sufferer in danger, the external wound should be closed, and events awaited.

7. When it is doubtful whether the bleeding proceeds from the cavity of the chest, or from the intercostal artery (a surgical bugbear), an incision through the skin and the external intercostal muscle will expose the artery close to the edge of the rib having the internal intercostal muscle behind it. The vessel thus exposed may be tied, or the end pinched by the forceps, until it ceases to bleed. Tying a string round the ribs is a destructive piece of cruelty, and the plugs, etc., formerly recommended, may be considered as surgical incongruities.

8. A gun-shot wound in the chest cannot close by adhesion, and must remain open. The position of the sufferer should therefore be that which is most comfortable to him. A small hole penetrating the cavity is more dangerous than a large one, and the wound is less dangerous if the ball goes through the body. The wound should be examined, and enlarged if necessary, in order to remove all extraneous substances, even if they should be seen to stick on the surface of the lungs; the opening should be covered with soft oiled or wet lint—a bandage when agreeable. The ear of the surgeon and the stethoscope are invaluable aids, and ought always to be in use; indeed, no injury of the chest can be scientifically treated without them.

9. Incised and gun-shot wounds of the abdomen are to be treated in *nearly* a similar manner; the position in both being that which is most agreeable to the patient, the parts being relaxed.

10. In wounds of the bladder, an elastic catheter is generally necessary. If it cannot be passed an opening should be made in the perinæum for the evacuation of the urine, with as little delay as possible.

11. In gun-shot fractures of the skull, the loose broken

pieces of bone, and all extraneous substances, are to be removed as soon as possible, and depressed fractures of bone are to be raised. A deep cut made by a heavy sword through the bone into the brain, generally causes a considerable depression of the inner table of the bone, whilst the outer may appear to be merely divided.

12. An arm is rarely to be amputated, except from the effects of a cannon-shot. The head of the bone is to be sawn off, if necessary. The elbow joint is to be cut out, if destroyed, and the sufferer, in either case, may have a very useful arm.

13. In a case of gun-shot fracture of the upper arm, in which the bone is much splintered, incisions are to be made, for the removal of all the broken pieces which it is feasible to take away. The elbow is to be supported. The forearm is to be treated in a similar manner; the splints used should be solid.

14. The hand is never to be amputated, unless all, or nearly all its parts are destroyed. Different bones of it and of the wrist are to be removed when irrecoverably injured, with or without the metacarpal bones and fingers or the thumb; but a thumb and one finger should always be preserved when possible.

15. The head of the thigh bone should be sawn off when broken by a musket-ball. Amputation at the hip-joint should only be done when the fracture extends some distance into the shaft, or the limb is destroyed by cannon-shot.

16. The knee-joint should be cut out when irrecoverably injured; but the limb is not to be amputated until it cannot be avoided.

17. A gun-shot fracture of the middle of the thigh, attended by great splintering, is a case for amputation. In less difficult cases, the splinters should be removed by incisions, particularly when they can be made on the upper and outer side of the thigh. The limb should be placed on a straight, firm splint. A broken thigh does not admit of much, and sometimes of no extension, without an unadvisable increase of suffering. An inch or two of shortening in the thigh does not so materially interfere with progression, as to make the sufferer regret having escaped amputation.

18. A leg injured below the knee should rarely be amputated in the first instance, unless from the effects of a cannon-shot. The splinters of bone are all to be immediately removed, by saw or forceps, after due incisions. The limb should be placed in iron splints, and hung on a permanent frame, as affording the greatest comfort, and probable chance of ultimate success.

19. An ankle-joint is to be cut out, unless the tendons around are too much injured, and so are the tarsal and metatarsal bones and toes. Incisions have hitherto been too little employed in the early treatment of these injuries of the foot for the removal of extraneous substances.

20. A wound of the principal artery of the thigh, in addition to a gun-shot fracture, renders immediate amputation necessary. In *no other part* of the body is amputation to be done in the first instance for such injury. Ligatures are to be placed on the wounded artery, one above, the other below the wound, and events awaited.

21. The occurrence of mortification in any of these cases will be known by the change of color in the skin. It will rarely occur in the upper extremity, but will frequently do so in the lower. When about to take place, the color of the skin of the foot changes, from the natural flesh color to a tallowy or mottled white. Amputation should be performed immediately above the fractured part. The mortification is yet local.

22. When this discoloration has not been observed, and the part shrinks, or gangrene has set in with more marked appearances, but yet seems to have *stopped* at the ankle, delay is, perhaps, admissible, but if it should again spread, or its cessation be doubtful, amputation should take place forthwith, although under less favorable circumstances. The mortification is becoming, or has become constitutional.

23. Bleeding, to the loss of life, is not a common occurrence in gun-shot wounds, although many do bleed considerably, seldom, however, requiring the application of a tourniquet as a matter of necessity, although frequently as one of precaution.

24. When the great artery of the thigh is wounded (not torn across), the bone being *uninjured*, the sufferer will probably bleed to death, unless aid be afforded, by making compression above, and on the bleeding part. A long, but not broad stone, tied sharply on with a handkerchief, will often suffice until assistance can be obtained, when both ends of the divided or wounded artery are to be secured by ligatures.

25. The upper end of the great artery of the thigh bleeds scarlet blood, the lower end dark venous-colored blood; and this is not departed from in a case of accidental injury, unless there have been previous disease in the limb. A knowledge of this fact or circumstance, which continues for several days, will prevent a mistake at the moment of injury, and at a subsequent period, if secondary hæmorrhage should occur. In the *upper* extremity both ends of the principal artery bleed

scarlet blood, from the free collateral circulation, and from the anastomoses in the hand.

26. From this cause, mortification rarely takes place after a wound of the principal artery of the arm, or even of the arm-pit. It *frequently* follows a wound of the principal artery in the upper, middle or even lower parts of the thigh, rendering amputation necessary.

27. It is a great question, when the bone is *uninjured*, where, and at what part, the amputation should be performed. Mortification of the foot and leg, from such a wound, is disposed to stop a little below the knee, if it should not destroy the sufferer; and the operation, if done in the first instance, as soon as the tallowy or mottled appearance of the foot is observed, should be done at that part; the wound of the artery, and the operation for securing the vessel above and below the wound, being left unheeded. By this proceeding when successful, the knee-joint is saved, whilst an amputation above the middle of the thigh is always very doubtful in its result.

28. When mortification has taken place from any cause, and has been arrested below the knee, and the dead parts show some sign of separation, it is usual to amputate above the knee. By not doing it, but by gradually separating and removing the dead parts, under the use of disinfecting medicaments and fresh air, a good stump may be ultimately made, the knee-joint and life being preserved, which latter is frequently lost after amputation under such circumstances.

29. Hospital Gangrene, when it unfortunately occurs, should be considered to be contagious and infectious, and is to be treated locally by destructive remedies, such as nitric acid, and the bivouacking or encamping of the remainder of the wounded, if it can be effected, or their removal to the open air.

30. Poultices have been very often applied in gun-shot wounds, from laziness, or to cover neglect, and should be used as seldom as possible.

31. Chloroform may be administered in all cases of amputation of the upper extremity and below the knee, and in all minor operations: which cases may also be deferred, without disadvantage, until the most serious operations are performed.

32. Amputation of the upper and middle parts of the thigh are to be done as soon as possible after the receipt of the injury. The administration of chloroform in them, when there is much prostration, is doubtful, and must be attended to, and observed with great care. The question whether it should or should not be administered in such cases being undecided.

33. If the young surgeon should not feel quite equal to the ready performance of the various operations recommended, many of them requiring great anatomical knowledge and manual dexterity (and it is not to be expected that he should), he should avail himself of every opportunity which may offer of perfecting his knowledge.

The surgery of the British army should be at the height of the surgery of the metropolis; and the medical officers of that service should recollect, that the elevation at which it has arrived has been on many points principally due to the labors of their predecessors, during the war in the Peninsula. It is expected, then, that they will not only correct any errors into which their predecessors may have fallen, but excel them by the additions their opportunities will permit them to make in the improvement of the great art and science of surgery.

Book Notices.

A PRACTICAL TREATISE ON PHTHISIS PULMONALIS;—Embracing its Pathology, Causes, Symptoms, and Treatment. By L. M. Lawson, M. D., Professor of Clinical Medicine in the University of Louisiana, etc., etc. Cincinnati: Hickey, Mallory & Co. New York: S. S. & W. Wood. 1861.

In a former number of the EXAMINER we simply announced the publication of the above work, with a promise to note its contents more in detail at some future time. That promise we now intend to fulfil. The work of Dr. Lawson, is a good sized octavo volume of 557 pages, printed on plain type, and substantially bound. It is divided into four parts, viz: Pathology of Phthisis; Etiology of Phthisis; Semeiology of Phthisis; and Therapeutics of Phthisis. The first part embraces thirteen chapters, in which the author discusses at considerable length, the nature of the "tuberculous constitution;" the "precursory stages of Phthisis;" pathological anatomy of the tubercle, its distribution, its successive changes, and the coincident condition of the blood and secretions; the secondary and tertiary lesions, and the varieties of Phthisis. The chief appreciable elements that make the

"tuberculous constitution," are, irregular or imperfect digestion; feebleness in the mechanical movements of respiration; a peculiarly delicate or attenuated condition of the capillaries; and an unduly sensitive condition of the nervous system, more especially that part of it connected with organic life.

In reference to enfeebled respiratory movements, the author says: "The special and evident change which occurs, consists in *impaired power of expansion*. At a more or less early period, the muscles concerned in the active expansion of the chest seem to lose a portion of their power, and the chest expands imperfectly and irregularly. In consequence of this, the *ordinary* breathing capacity is diminished, the respiratory murmur becomes more or less weakened, and, at the same time, wavy and even jerking. These changes in the respiratory murmur are readily perceived by auscultation, and the diminished capacity may not only be inferred from the condition of respiration, but positively demonstrated by the movements of the chest. I have long been in the habit of observing these modifications of the respiratory function, and regard them as decidedly the most characteristic of all the signs supposed to indicate the existence of this state of the constitution."

The imperfect expansion of the chest here described by Dr. Lawson, together with the altered or "wavy" respiratory murmur, we have also noticed and studied carefully for several years. But, like Dr. Thompson, we have regarded it as indicative of the first step in the progress of actual tuberculosis, rather than as evidence of the mere tuberculous constitution. And we have felt the more confident in this view, from the fact that, we have almost invariably found the diminished expansion and wavy murmur, connected with increased vibration of voice and an appreciable diminution of resonance on percussion; signs of increased density, which could hardly result from simple feebleness of expansion.

In reference to the imperfect development of the capillaries and other structures, the author says: "The pulmonary system, embracing the areolar tissue and capillaries, partakes of the same defects that belong to these structures in the

tuberculous constitution generally; hence, it may be assumed that the capillaries of the lungs are comparatively weak and attenuated, and the areolar tissue coarse and inelastic."

The smaller size and diminished contractility of the pulmonary capillaries in the tuberculous constitution, have been pointed out by Mr. Ancell, and, at least, partially demonstrated by Dr. J. S. Campbell. If we grant this defective condition of the capillaries, coupled, as it is, with undue nervous excitability, or perhaps more properly, exalted organic susceptibility, we shall readily perceive why persons with this constitution are so sensitive to morbid impressions, and especially to atmospheric changes. We have arrested the attention of the reader, here, upon the very threshold of Dr. Lawson's work, simply because a clear comprehension of the nature of the tuberculous constitution, and the stage of predisposition, is of the utmost practical value. It is the time when we may adopt judicious hygienic regulations and remedial measures with a prospect of success.

Part II, embraces three chapters, namely: one on *hereditary* predisposition; one on "causes which may induce Phthisis, independent of an hereditary predisposition;" and one on the "pathological inducing causes of Phthisis." The second of these chapters is, perhaps, the most important one in the volume. In it the author discusses with much ability, the influence of climate and atmospheric conditions as causes of Phthisis. Copious statistical tables are adduced in reference to the prevalence of the disease in various countries. The same chapter includes a brief consideration of the influence of age, sex, and digestion.

Most of our readers will remember that the facts and statistics adduced by Drs. Forrey and Drake, led to the inference that climate exercised very little influence over the development of Phthisis. Their statistics were derived mostly from the registry of mortality at the various military stations. Dr. Lawson on comparing these with a careful analysis of the United States census returns, arrives at a different conclusion, which he states as follows:

"Taking all these facts into consideration, I am fully persuaded that consumption originates far less commonly in the

Southern than in the more Northern regions, and that it gradually but perceptibly diminishes from Maine to Florida. And without claiming absolute accuracy, I believe the tables compiled from the United States census are very near the truth, and will be found sufficient guides for practical purposes. Thus, the mortality from Phthisis, in the Eastern Division, may be set down at one in three hundred and twenty-eight; in the Middle Division, one in five hundred and nineteen; in the Western Division, one in eight hundred and eighty-two; and in the Southern Division, one in twelve hundred and eighty-seven. This shows the mortality from Phthisis to be three times greater in the Northern than in the Southern."

If we may rely on these deductions, the diminution in the prevalence of consumption from North to South, is by no means "gradual," but very rapid. And yet this rule is limited in its application; for Dr. Lawson, like most other writers, admits that many localities in high Northern latitudes are remarkably exempt from the prevalence of this disease; while on the other hand, some localities even between the *tropics* afford a very high ratio of its prevalence. Again, if we look to the details of the tables contained in Dr. Lawson's work, we shall find facts strongly opposed to the idea of any *gradual* diminution from North to South. Thus Maryland is represented to have *one* death from Phthisis for every 529 of her population, while Pennsylvania has only one in 641. Michigan gives one in 602, while Wisconsin gives only one in 1050. Louisiana one in 802, while Illinois gives only one in 975. The ratio in Georgia and Florida is represented as seventy-five per cent. higher than in South Carolina. Such facts show very clearly that other causes besides the ordinary elements of climate, exert a controlling influence over the development of tubercular diseases, and greatly lessen the value of all mere geographical statistics.

The Third Division of the work contains about 100 pages, devoted to the symptoms and physical signs accompanying the several stages of phthisis, with the differential diagnosis between it and inflammatory affections of the respiratory organs.

Part Fourth, on the Therapeutics of Phthisis, embraces three chapters. The first, is devoted to the treatment of Chronic Phthisis, in all its stages, together with its incidental complications.

The second, is devoted to the treatment of Inflammatory or Acute Phthisis. And the third, contains the author's views on the special questions of change of climate—sea voyages—Gestation—Topical Medication—Prognosis and Conclusions. In the precursory or forming stage of Phthisis, the author dwells with just emphasis, on the adoption of proper hygienic regulations. The choosing of such localities as afford pure and dry air; free muscular exercise out of doors; and a nutritious diet, are conditions absolutely *essential*, to afford even a chance of recovery.

As special remedial agents, in this stage, he recommends tonics, the most important of which are the preparations of iron; cod-liver oil; and in some cases, alcoholic stimulants.

In reference to the question of the *curability* of Phthisis, the author says: "The present state of science justifies the assumption that tubercular exudation is susceptible of absorption; and furthermore, that tubercular consolidations may liquify and return to the circulation, or be eliminated through the bronchial tubes, leaving, in either case, a condition of actual cure."

Again he says: "But the cases of *permanent* cure are sufficiently numerous to become an important element in prognosis, and to assure the physician that Phthisis is, to a certain extent, a curable disease. * * * * *

"The conditions which justify a favorable prognosis may be thus stated:

"1. When the tubercles are limited to one lung, are not very extensive, and have not been associated with inflammation, either as a sequence or an inducing cause.

"2. The general health remaining in a fair condition, without rapid emaciation, fever, or derangement of digestion.

"3. A hereditary tendency to phthisis being slight or entirely absent.

"4. The patient possessing naturally a good constitution, with a sanguineous or nervo-sanguineous temperament.

"5. The occupation being favorable, or at least, not of a character to induce Phthisis, or the patient being in a condition to make a change to a more suitable business.

"6. The patient having confidence in his medical attendant, and a willingness to submit to treatment, and the ability to avail himself of all incidental means and conditions favoring his recovery, including a change of climate.

"7. A cheerful and hopeful mental constitution, and a desire to contribute his share to the successful treatment."

In looking over the work of Dr. Lawson, we find some views relating both to the Pathology and Therapeutics of Phthisis, from which we are compelled to dissent, and should time permit, we shall certainly call the attention of our readers to them at no distant day.

Neither have we found in the pages of his work, as much evidence of original investigation, as we had hoped, and yet we have perused the work with pleasure and profit. It presents a pretty full and fair summary of existing knowledge on the subject of which it treats, and it will at once take its place as a standard work, which should be in the library of every practitioner.

FORTY-FOURTH ANNUAL REPORT ON THE STATE OF THE ASYLUM FOR THE RELIEF OF PERSONS DEPRIVED OF THE USE OF THEIR REASON.—Published by Direction of the Contributors, Third Month, 1861, Philadelphia.

ANNUAL REPORT OF THE BOARD OF TRUSTEES AND OFFICERS OF LONGVIEW ASYLUM, TO THE GOVERNOR OF THE STATE OF OHIO—For the year 1860. Columbus, Ohio.

Two neatly printed reports, of no special interest except to those directly concerned. They serve to show, however, the attention given to and interest in this branch of the healing art; and their statistical tables will be valuable to the future student or writer on this speciality. The Friend's Asylum is the first in this country, in which any marked improvement over the olden barbarities of the strait-jacket and solitary confinement in worse than prison-cells, was introduced in the treatment of Insanity; and its successful establishment marks a happy era in the history of the disease in this country. Dr. Worthington furnishes, in his report, nine statistical tables,

based on the conditions, occupations, etc., of some 1,430 patients.

The Longview Asylum, in actual operation only since February or March, 1860, is probably the largest, best constructed, and best arranged Insane Asylum in the country ; the edifice, being of brick, six-hundred and twelve feet long, from three to five stories high, from forty-five to one hundred and seventy-six feet deep, exclusive of a long, low building continued back one hundred and seventy feet in the rear of the main building, and an infinitude of rotundas, chapels, wards, dining, reception, bath, bed, lumber, reading, library, servants', work, clothing, dead, and other rooms, of bowling-alleys and billiard-halls, air ducts, dust and clothes-chutes, boilers, flues, stories, wings and corridors, gymnasia, etc., etc., etc., before which the details of the *Great Eastern* sink into insignificance. Dr. Langdon, the Superintendent and Physician, will find abundant employ for his well-known skill, energy and ability, in the conduct of this Institution, the existence of which, to quote his own words, is indeed not only a strong proof of the highest type of civilization in any community which originates and sustains such, but while effecting the more direct and obvious good results for which it is designed, it cannot fail to have an indirectly beneficial influence upon the community, by keeping constantly before it a prominent instance of far-sighted benevolence, in which the question of expense has been kept entirely subordinate to that of relieving in the most effectual manner, the affliction of a most unfortunate class.

REPORT OF THE BOARD OF HEALTH OF PHILADELPHIA FOR 1860.—Sanitary and Statistical. In accordance with an Act of the Legislature, approved March 8th, 1860, for the Registration of Births, Marriages and Deaths. Philadelphia: 1861.

Want of space, in the present number, alone prevents us making the receipt of this pamphlet, the occasion for some much-needed remarks on the barbarous condition of this most important subject in our State, *i. e.*, the registration-laws—the collection, under statute requirement and regulation, of those vital and mortuary statistics by which, alone, can the laws

governing human existence be determined. So far as we are informed, marriages only are made the subject of registration in Illinois; if there is any law relative to the registration of deaths or even for the issue of certificates as to cause, they have alike fallen into disuse; while births would seem to be too common-place occurrences to merit any attention. But, given the enactment of judicious registration-laws of births, marriages and deaths, and their faithful enforcement, it would fall short of the requirements of the progress of the age; and we need, and must have, in addition, a *registration of sickness*—a branch which, to the shame of the profession, be it said, is and always has been entirely neglected—as though it concerned us to know the chances of the one death which must come to each, more than the probabilities of the multitude of diseases, which might be guarded against by a thorough, accurate knowledge of their habitats, times of greatest prevalence and the attendant circumstances which favor their eduction. The first without the last, is much as though the Surgeon-General should give us only the list of killed, omitting all mention of the wounded, in his casualty list.

The Report is a valuable one, and will, in the future, be of much use as a basis of statistics of the greatest importance.

HAND-BOOK FOR THE MILITARY SURGEON:—Being a Compendium of the Duties of the Medical Officer in the Field, the Sanitary Management of the Camp, the Preparation of Food, etc.; with Forms for the Requisitions for Supplies, Returns, etc.; Diagnosis and Treatment of Camp Dysentery; and all the Important Points in *War Surgery*: Including Gun-Shot Wounds, Amputations, Wounds in the Chest, Abdomen, Arteries and Head, and the Use of Chloroform. By CHARLES S. TRIPLER, A. M., M. D., Surgeon United States Army. And GEORGE C. BLACKMAN, M. D., F. R. M. S., Professor of Surgery in the Medical College of Ohio, Surgeon to the Commercial Hospital, St. John's Hospital, etc. Cincinnati: Robert Clark & Co., Publishers. 1861.

The first, of numbers to be looked for in these days of the reign of *horrida Bella*, and of utter stagnation among the book publishers, in aught not directly appertaining to the tented field. In fact, this and its companion, elsewhere noticed, both confess to be solely the result of the energy of "the enterprising publishers," and not the mature outgrowth of their respective authors. Not, however, that this

work is not valuable and eminently opportune in its appearance; for the position of Dr. Tripler, U. S. A., and within a very few removes of the oldest surgeon in the army, is sufficient guarantee of actual worth, aside from the high endorsement of Prof. Blackman's name and active co-operation.

The substance of the work is an extended and revised form of a series of lectures on Military Surgery, which Dr. Tripler has very acceptably delivered in the Medical College of Ohio, during the past three years. These lectures cover the ground of *Duties of the Medical Officer—organization of field-hospitals—mode of procuring supplies—military hygiene—preservation of health of troops in campaign—camp dysentery—general history, character and treatment of gun-shot wounds, amputations, and wounds of the chest*. Prof. Blackman supplies the chapters on *wounds of the abdomen, head and arteries*; and the chapter on the *Use of Chloroform* is from Mr. Macleod's valuable work on the Crimean War.

A REPORT ON EPIDEMICS AND ENDEMICS.—CHOLERA.—By O. C. GIBBS, M. D., Frew-burg, N. Y. 1861.

We are indebted to the author for a copy of this, the second paper in his proposed work on the various diseases ranked under the heads of Epidemics and Endemics, and which, first giving historical sketches of the rise, progress and theories of this class of diseases, was to have been followed by a full consideration of the modes of *treatment, etc.*,—the whole forming a systematic work on the subject.

This paper is marked by the author's usual broad, philosophical grasp of thought and treatment,—comprehensive and practical in scope and detail, and furnishing a strong appeal of facts and able argument alike to the popular and professional mind. Rejecting the theory that this voiceless and invisible plague, the death-spawn of an Indian jungle, is a necessary part of the Divine economy—a theory worthy an African fetish or obi-worshipper, worthy the heathen estimate of the attributes of a heathen god,—Dr. Gibbs proceeds to show that it is the legitimate sequence of man's folly, arising from the vicissitudes of his physical and social conditions, preventable by his wisdom and amenable to common, universal

sanitary laws. Upon which premises he bases the dicta, that judicious and efficient sanitary regulations and the free use of disinfectants, as prophylactic measures, will doubtless be of more service than any treatment; that the administration of chlorine would form a part of all judicious medication, citing the fact that Dr. Mann, of Clerkenwell, exhibited chlorine water in nearly one hundred cases, with a loss of only two patients.

We regret, exceedingly, the necessity which causes Dr. Gibbs to forego his original intention, and trust he may soon find himself at liberty to continue his valuable contributions to a branch of our literature, than which few others have been more neglected—*i. e.*, Epidemiology and its complement.

A MANUAL OF MILITARY SURGERY, OR HINTS ON THE EMERGENCIES OF FIELD, CAMP AND HOSPITAL PRACTICE —By S. D. GROSS, M. D., Professor of Surgery in the Jefferson Medical College, of Philadelphia. J. B. Lippincott & Co. Philadelphia: 1861.

This is a little 16mo of 186 pages, originally prepared for a Magazine-article, but afterwards changed to a manual for the instruction of surgeons to the volunteer forces of the army. The subjects treated of are the Duties of Surgeons, Hospitals, Stores, Wounds, Amputations and Resections, Diseases of Camp, Military Hygiene, Examination of Recruits, and Dietetic Formulæ. The work was evidently prepared in haste, and hence is not up to the usual standard of the writings of the distinguished author; but, from its portability, and the amount of concise information it contains, will, no doubt, be favorably received by the junior members of the army medical staff.

BAILLIERE BROTHERS announce the forthcoming publication of a PRACTICAL TREATISE ON MILITARY SURGERY, by Frank Hastings Hamilton, M. D., the eminent Surgeon and Author.

The work will embrace the Examination of Recruits, Hygiene, and Accommodation of Troops in Tents, Barracks, Huts, etc.; Hospitals; Preparations for the Field; Flying Ambulances, Litters, etc.; Gunshot Wounds, Amputations, Hospital Gangrene, Scurvy, etc.; United States Army Medical Regulations, with many other matters pertaining to Military Surgery.

Editorial.

THROUGH A MISCALCULATION, several articles, including our usual selections of medical intelligence, etc., already prepared, and some actually in type, have been crowded out.

WE SHALL BE PLEASED to have, from any of the Medical Staff of the Western Division of the Army, the records of their observations and experience, for publication in the EXAMINER, for the benefit and instruction of the profession.

THE *American Medical Times*, in a recent number transfers thirty of our Illinois physicians, *en masse*, to Michigan, by making the Illinois Medical Examining Board an appointment of the Legislature of Michigan. Illinois is still in the Union, Messieurs Editors *American Medical Times*, and not a peninsular dependency.

SUMMER SCHOOLS.—The Summer Course of the Medical Department of Lind University is still in progress, and the students are now enjoying the advantage of clinics in the Marine Hospital—making in all, eight clinics per week, at the present time, and six didactic lectures.

We are informed that the Summer Course of the Rush Medical College has been discontinued, for the past two or three weeks, nor do we learn of any intention to resume until the usual winter term.

CONTAGIOUSNESS OF DIPHTHERIA.—The recent death of Dr. Horace W. Adams, of Boston, from diphtheria, contracted from a patient, reminds us to suggest to our readers the propriety of placing on record the details of cases of such contagion, falling under their observation. Foreign exchanges mention the death of M. Gendron, of Château du Loire, France, from a similar cause,—the 'diphtheritic exudations having been received in his face and mouth, while performing the operation of tracheotomy on a patient under his care. Dr.

Frick, of Baltimore, also died, it may be remembered, in a similar manner, last year. The *Berkshire Medical Journal* regards an immediate thorough washing with some chlorinated solution, such as Labarraque's, or of diluted hydrochloric acid, as the means most likely to avert the risk of contagion, in case of receiving the false membrane on a mucous surface. The acidulated solution of chlorate of potash, after the formula and mode of use given on page 159 of the current volume of the EXAMINER, will no doubt, be found efficient in such cases.

OBITUARY—DR. LAWSON—DR. REESE.—The venerable head of the Medical Department of the United States Army, died suddenly of apoplexy, during the past month, at the advanced age of seventy-five. Surgeon-General LAWSON had held his position for over twenty years, and during his half century's experience of practice, had won for himself an enviable reputation as a successful physician, and an honorable gentleman and soldier. He died at Norfolk, whither he had gone for the benefit of his health.

—The well known editor of the *American Medical Gazette*, DAVID MEREDITH REESE, M. D., LL.D., died at his residence in New York city, on the morning of the 13th ult., of cardiac disease. Dr. Reese's name has been quite prominently before the profession in the forty years of an active career, during which he has filled chairs in the Washington University of Baltimore, in the Albany Medical College, N. Y., in the Castleton Medical College, Vt.; was for several years Resident Physician to Bellevue Hospital; Vice President of the American Medical Association; edited, and was author of several works of a professional and general character; and at the time of his death, held a professorship in the New York Medical College, and during the last session, delivered a full course of lectures on his branch—the Practice of Medicine. The *Am. Med. Times* says his most useful papers were his reports to the American Medical Association, the last of which, on *Medical Education*, it characterizes as replete with mature and well-digested views on this all-important subject.

SCURVY.—The remarks of Prof. Andrews on this subject (see page 259) derive additional interest from the fact that this disease is on the increase in the mercantile marine, and that in the United States Army, 2,803 cases of scurvy were reported as occurring, in the five years ending December, 1859, in an average number of less than fourteen thousand men.

Special Notices.

SUMMER TERM AT THE LIND.—*One recitation and one familiar explanatory lecture daily until the first Monday in October, on the following branches:—Materia Medica and Prac. Med.—Prof. J. H. Hollister. Anatomy and Surgery—Prof. R. N. Isham. Chemistry—Prof. F. Mahla. Obstetrics and Diseases of Women—Prof. W. H. Byford. Physiology and Pathology—Prof. H. A. Johnson. Clinical Surgery—Prof. E. Andrews. Clinical Medicine—Prof. N. S. Davis.*

Cliniques at Mercy Hospital, from 9 to 10 A. M., in the Medical Wards, service of Prof. DAVIS, on Tuesdays and Fridays; in the Surgical Wards, service of Prof. ANDREWS, on Mondays and Thursdays. At Marine Hospital, from 9 to 10 A. M., service of Prof. ISHAM, on Wednesdays and Saturdays.

At Chicago Dispensary, from 2 to 3 P. M., Medical and Surgical service, Profs. ANDREWS and BYFORD, on Wednesdays; Diseases of Women and Children, service Prof. BYFORD, on Saturdays.

Lectures on Military Surgery, by Prof. ANDREWS, in the Amphitheatre of the College, on Wednesday and Saturday afternoons, from 5 to 6.

Prof. BRAINARD lectures on Military Surgery, in the lower lecture-room of the Rush Medical College, on Tuesdays and Fridays, from 5 to 6 P. M.

PHYSICIANS, willing to propagate Vaccine symph, for the use of the volunteer forces of this State, can obtain a few charges by applying at the office of the EXAMINER, with the understanding that the increase is to be devoted to this purpose.

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THE Chicago Medical Examiner.

N. S. DAVIS, M. D., Editor.---FRANK W. REILLY, M. D., Ass't Editor.

**A MONTHLY JOURNAL,
DEVOTED TO "THE
EDUCATIONAL, SCIENTIFIC, AND PRACTICAL INTERESTS
OF THE
MEDICAL PROFESSION."**

The EXAMINER will be issued during the first week of each month, commencing with January, 1860. Each number will contain 64 pages of reading matter, the greater part of which will be filled with such contents as will directly aid the practitioner in the daily practical duties of his profession.

To secure this object fully, we shall give, in each number, in addition to ordinary original articles, and selections on practical subjects, a faithful report of many of the more interesting cases presented at the Hospitals and College Cliniques. While aiming, however, to make the EXAMINER eminently practical, we shall not neglect either the scientific, social, or educational interests of the profession. It will not be the special organ of any one institution, society, or clique; but its columns will be open for well-written articles from any respectable member of the profession, on all topics legitimately within the domain of medical literature, science and education.

Terms, \$2.00 per annum, invariably in advance.

THE CHICAGO MEDICAL EXAMINER

N. S. DAVIS, M. D., Editor.—FRANK W. REILLY, M. D., Ass't Editor.

VOL. II.]

JULY, 1861.

[NO. 7

Original Contributions.

ARTICLE I.

LECTURES ON MILITARY SURGERY:

DELIVERED DURING THE SUMMER COURSE OF THE MEDICAL
DEPARTMENT OF LIND UNIVERSITY.

By E. ANDREWS, A. M., M. D.,

PROF. OF SURGERY; SURGEON TO THE MERCY HOSPITAL; TO THE CHICAGO MED. DISPENSARY, ETC.

LECTURE THIRD.

MARCHES.

Troops upon the march usually proceed by public highways in long columns. As time is the very essence of military plans, a greater speed in marching is often equivalent to superiority of force. Hence men are not unfrequently urged over a great distance in a single day, and in these cases a number of them will usually succumb to the heat, dust and fatigue, so far as to require the Surgeon's assistance. For this purpose, the Surgeon should ride in the rear of the column, in order that men who become sick or exhausted may step out of the ranks and wait until the Surgeon comes up. He should then examine them, prescribe for them, and either order them back to the ranks, or assign them a place in the wagons, according as they are or are not able to proceed on foot. Some discretion is to be used in this duty, lest lazy men impose on the humanity of the medical officer, and feign sickness, in order to obtain an opportunity to ride.

If the Surgeon, or any other mounted officer has occasion to ride past the column, he should proceed by the leeward side, in order that the dust raised by the horse may not add to the discomfort of the men.

Some of the men in every long march suffer from sore feet. This generally results from ill-fitting shoes or from sweaty feet. New shoes are particularly liable to hurt the feet. In providing for recruits, therefore, care should be taken that no man has a pair which pinch. Some men are troubled with inordinate sweating of the feet, even in very cool weather. In these cases, the stockings are soon wet, and the cuticle becoming softened and macerated, rubs off, and the feet become terribly sore. The preventive remedy for this evil is simple and effectual: Let the man put an ounce of finely powdered alum in the bottom of each stocking, and he will walk all day, for a week or two together, with perfectly dry and comfortable feet. After awhile, as the effect of the astringent wears off, the sweating may show signs of returning, when a repetition of the same remedy will, as before, effectually suppress it.

In the middle of the day the men are halted for dinner. Care should be taken that this halt is made where good water is obtainable.

At night the troops either "bivouac" or encamp.

The bivouac is simply the usual arrangement of guards, etc., which are adopted in any encampment; but the men lie down without shelter on the open field. This method of repose is adopted whenever the men from any cause are separated from their tents, or when from urgent danger, it is unsafe to have them leave their position on the field to go into camp.

Such circumstances often allow no chance to look after sanitary measures, but if possible, high and dry ground should be chosen, free from malaria and moisture. If the weather is cold, the sheltered side of a hill, or a forest, may be selected, and unless the secrecy of the location is to be preserved, fires should be built. Where parties are forced to bivouac in deep snow, great comfort is obtained by covering the men with snow outside of their blankets, or by burrowing into drifts for a lodging, as was practiced by Dr. Kane in the North.

CAMPS.

At the end of a day's march, the army usually encamp regularly under tents. The spot being properly marked out, the men await the arrival of the tents, which they pitch in regular rows, so as to form streets. While waiting for the tents, they gather wood for fires, and prepare for cooking their supper. Supper being over, they retire to rest. Among volunteer soldiers, great laxity is apt to prevail in these duties. Neither they, nor their officers being aware of the necessity of adhering to the regulations for the sake of health. If the men are exhausted, they are prone to lie down on the grass in wet or sweaty clothes, and fall asleep, neglecting both their supper and their tents. In the night they get chilled, and by morning, have laid the foundation of many cases of diarrhœa, dysentery, and fever. It is the duty of the Surgeon to show the officers the danger of this negligence. The men, in spite of their weariness, should be forced to cook and eat their suppers, and pitch their tents promptly and regularly, and if wet, to change their clothes. They will then sleep soundly, and wake in the morning invigorated for renewed exertions, instead of sickened and prepared for the hospital.

If the camp is to be occupied for a considerable time, some extra care is required. First, the location should be a healthy one. Next, the men should be provided with hay or straw to sleep upon, and this litter must be turned out and aired on every dry day. The tents should each be surrounded with a slight trench, to take off any surface water which may accumulate during rains. A privy must be constructed for the use of the men, in a suitable place. The regulations direct the privy for the men, to be located one hundred and fifty yards in front of the color line, and that of the officers, to be one hundred yards to the rear. Surgeon Tripler, U. S. A., advises instead of this, that both be put always on the side towards which the prevailing winds blow, in order to avoid the effluvia arising from them.

The construction of these temporary sinks is as follows: A trench is dug, about ten or twelve feet in length. At each end a strong forked stake is planted and a heavy pole

laid upon them, across which the soldiers sit. The whole is enclosed by placing a thick row of bushes around it. After a few days the trench should be carefully covered up and a new one dug.

Among volunteers great care is required to make the men observe the laws of camp cleanliness. They are prone to scatter portions of their rations among their straw, or throw them upon the ground about the tents, and even to excrete their urine upon the ground in the vicinity, instead of going to the sink prepared for the purpose. Such deposits begin, in a very few days, to contaminate the air of a camp, and to produce an increase of diarrhoea and dysentery.

TENTS.

A variety of tents have been used for military purposes. The most common is the ordinary square ridge-pole tent. This is light, and sufficiently comfortable for summer campaigns. It is rendered more capacious sometimes, by pitching it higher, and adding a perpendicular cloth or curtain from the eaves to the ground. This constitutes the "wall tent."

In cold weather, circular, or rather conical tents are preferable, on account of the less surface which they expose to the cold air. For winter or autumn use, our Government sometimes employ the "Sibley tent." This is constructed after the pattern of the Camanche lodges. It is conical, and being intended to contain a fire, has an opening at the top for the exit of the smoke. The centre pole does not reach the ground, but stands upon the top of an iron tripod, under which the fire is built and to which a kettle may be hung. In winter, a basement is dug about three feet in depth, which protects the men from wind and very much increases their comfort. At the summit of the cone a sort of wind sail or wing is attached for summer use, which serves to direct the current of air for ventilation. These tents, which will accommodate twelve men each, were used by our army in Utah during an entire winter in that severe climate, and were found to render the men perfectly comfortable.

A variety of other tents have been devised for camp life, but the discussion of their merits in full, belongs rather to the military than to the medical officer. A very fine wall tent may be seen at the encampment of the Sturges' Rifles, near this city.

HUTS.

In cold weather it is often necessary to construct huts for the camp. In timbered regions these may be built precisely like the log cabins of the early settlers. In rocky countries stone huts may be erected; and in any region very warm huts may be made by sinking a pit in the ground and roofing it with turf, boards or tent cloth.

The huts must always be surrounded with ditches to take away the surface water.

BARRACKS.

Permanent barracks are built of brick, stone or iron, but those for temporary use are often constructed of rough boards.

In planning these edifices, it must be borne in mind that bad ventilation will cause more deaths by sickness than all other errors combined.

To avoid such evils, a very free supply of fresh air should be admitted at or near the floor of the rooms, and the foul air allowed to escape at the top. The apartments should be lofty, and, if possible, should allow the same space per man as a hospital, viz., one thousand cubic feet. In addition to the wards for sleeping, there must be spacious halls and staircases; and lastly, wide verandahs, in which the men can sit protected from the sun, without crowding together in the sleeping rooms.

HOSPITALS.

The place where the sick and wounded are taken care of, whether within walls of canvas or of hewn stone, is called the Hospital.

The persons connected with the Hospital are—1st, The Surgeons and Assistant-Surgeons; 2d, The Steward; 3d, The Ward Masters; 4th, The Nurses; 5th, The Orderlies and other subordinates.

The senior medical officer of any separate division of the

army is called the Medical Director. He is obliged to keep the muster and pay rolls of the attachés of the hospital, including such patients as are transferred to him from other corps. He appoints one medical officer, whose business it is to see that proper supplies are always on hand, and who is called the Medical Purveyor. All requisitions upon the Purveyor are to be approved by the Director. Regular returns are, of course, made of all these things to the authorities above them, and for this purpose blank forms are provided for every report.

The senior medical officer of a regiment or hospital keeps a register of patients, a book for recording cases, an order book, a letter book, and a prescription and diet book. The latter is carried by an attendant on his rounds among the patients, and the directions for medicine and diet entered at once on the spot. At permanent military posts the Surgeon is also obliged to keep a constant meteorological register.

At a regular hour in the day the Surgeon's Call is beaten, when the first sergeants bring forward to the hospital all the sick in their companies, presenting a list. In camp this call is beaten in the morning, and on marches in the evening. The Surgeon examines the patients and orders such as are too sick to remain in quarters, into the hospital. Those who are convalescent or slightly sick are returned to their quarters, and those who are well, and only pretending to be sick, are ordered on duty. A daily report is made to the commanding officer, that it may always be known who and how many are fit for service.

Finally, the medical officer selects the matrons, nurses and cooks for the hospital, and uses his authority to see that they execute their duties faithfully.

The Steward has charge of the material affairs of the hospital.

The Ward Master is one of the nurses, and looks after the bedding, etc.

The nurses are generally taken from the ranks, and one nurse is allowed to every ten patients. From the nature of the case a large part of the nurses must be males; but since the exploits of Florence Nightingale in the Crimean war,

female nurses have been admitted in the British army. In the United States the same experiment is being tried. Miss Dix, famed for her influence in originating insane asylums in every part of the United States, has been placed in charge of the appointment of female nurses and of their introduction to their duties. Miss Dix has hitherto remained at Washington and Fortress Monroe, while Mrs. Yates, as her subordinate, has charge of the female nurses at Cairo, in this State.

The requirements of a female nurse are, that she shall be over thirty years of age, shall be sound and vigorous in body, and shall present sufficient testimonials, signed by clergymen and physicians, attesting her moral character and her capacity in her profession.

One cook is allowed for every thirty patients.

The Steward has the pay of an Orderly Sergeant. The Matron has six dollars a month and one ration a day. The cooks and nurses taken from the ranks receive the common pay of soldiers, with twenty-five cents a day extra.

It is probable that the introduction of female nurses in field hospitals will not be attempted, but their employment, under judicious selection and management, must be of great advantage in general hospitals. It is easy to see that the patients may thus receive a more kindly and home-like care than they ordinarily get from their untutored or half tutored comrades.

ARTICLE II.

DEATH FROM PROLONGED IRRITATION OF THE LEFT PHRENIC NERVE.

Reported by J. H. HOLLISTER, M. D.

The pathological symptoms in the following case were so marked, as to lead to a correct diagnosis of the difficulty, and so plainly attest the function of the phrenic nerve, that I am induced to present the facts for publication.

Case.—M. E., American; aged thirty-three; height six feet; figure rather slight, but finely developed; remarkably athletic.

I saw this gentleman in consultation with his father, who is a physician, on the 17th of February, 1860, and received

The Patient's History of the Case:—He had enjoyed uninterrupted good health until the previous July. During this month, he was twice ill, but was unable to give a clear statement of the nature of the attacks. In each instance he fainted, and was *bled*. In October, nearly three months later, while in a standing position, and exerting himself to the utmost, in raising a weight above his head, he fell senseless to the ground. His consciousness returned in a short time, and he was removed to his house and placed in bed. He suffered most excruciating pain in the region of the sixth dorsal vertebra, and was obliged to lie, for many days, nearly upon his face. His mental powers, during this period, were not impaired; there was no paralysis of the limbs, nor derangement of secreting organs. He was entirely unable to turn himself, however, from the most excruciating pain, which the least flexion of the spine produced. He was treated for local injury, and though always suffering severely from the least pressure upon the spinous process of the vertebra referred to, had so far recovered, as in January following, to make a single carriage drive of thirty miles. His business demanded his undivided attention, and while thus engaged, having had neither rest nor food since the exertion of riding, he was seized with convulsions, from which he rallied in about one hour. He soon recovered sufficiently to return home, and appeared much the same, as for the previous two months. Sixteen days later, he had a second attack, with slight tetanic spasms, and loss of consciousness for a little time. Twenty-three days from this time, he was somewhat recovered, and had accomplished a journey of two hundred miles to this city.

Appearance.—At the time of my first visit, he had the general symptoms of prostration which might be anticipated.

His appetite was failing, and gradual emaciation showed a failure of the assimilative powers. The peculiar symptom which first attracted my attention, was a *hacking cough* with every inspiration. There was no cessation, day nor night, and the patient was perfectly prostrated from constant effort,

which almost entirely deprived him of sleep. A careful examination revealed no disease of the lungs, but the fact that every movement of the diaphragm produced a spasmodic expulsion of the inhaled air. The difficulty yielded to no treatment which we could devise. The cough was more prolonged, and excited by almost every breathing. The patient rapidly failed, literally *worn down* from want of rest. A week later the cough was less, but *now*, there was, with each descent of the diaphragm, a violent effort at vomiting. Little, if any, food or drink was retained, and exhaustion was rapid.

The vomiting changed, as the patient sunk, into a most distressing hiccough, which continued for some two days, when he expired.

Diagnosis.—There had been no derangement of organic functions to cause apprehension, from the time I first saw him. He evidently died from the continued spasmodic action of the diaphragm disturbing 1st, the respiration, 2d, the normal action of the stomach, and 3d, where debility was now marked—ending in simple spasmodic hiccough. The sensitiveness over the sixth dorsal vertebra had remained, though less marked than formerly. It seemed evident that by reason of injury to the spinal cord, for some reason which we could not explain, the cervical plexus of nerves must be sympathetically affected, and the irritation transmitted by one or both of the phrenic nerves to the place of distribution.

Autopsy:—Eighteen hours after death. Body much emaciated; in other respects, there were no unusual appearances.

Several of the neural arches being removed in the dorsal region, the left lamina of the sixth vertebra was found fractured transversely, and without any evidence of an effort at reunion, although the injury was of nearly eight months standing!

There was a small amount of dark deposit within the arch, resulting from partial re-absorption of more or less blood-clot.

The arachnoid membrane was considerably thickened, but the cord itself presented no abnormal appearance, except a slight discoloration. We now turned the body, to trace the phrenic nerves in their course through the thorax. And

here, the immediate cause of death seemed evident. Upon the left side, upon the anterior surface of the pulmonary aorta, near its base, as the nerve passed between the pleural and pericardial structures, it was raised from its ordinary course nearly half an inch, by an *enlarged lymphatic* gland. The tumor had a broad base, with a sharp ridge-like apex, dense, and unyielding, over which the nerve passed, so tightly drawn as to be imbedded about the depth of its size in the abnormal growth. The tumor, separate from other tissues, weighed *half an ounce*. The nerve presented no unusual appearance above or below the points of pressure, but when traced to its distribution, upon the upper surface of the diaphragm, there was brought to our view one of the most interesting pathological appearances I have ever beheld. We traced the nerve with care, from the point of its contact with the diaphragm, in its distribution beneath the pleural covering. And as from a centre, there was, in the direction of the larger branches of the nerve, a most beautiful capillary injection, deeply *arterial* in color, near the central point, and shading in finer distributions, till lost in the pale rose-color of the tissues around. An injection more beautiful can hardly be conceived. A faint resemblance is found in some of the finer specimens of the *Red Sea Alga*, when skilfully displayed and dried upon paper.

No other abnormal appearances were found in any of the viscera. Here had been a train of symptoms which could be perfectly accounted for, by the appearances before us—the evidence of *nerve irritation* being *unquestionable*, and we are only left to *speculate* upon this question—Was the enlargement of the lymphatic gland a matter of accident independent of the spinal injury? or *was the nerve sympathetically affected, and this gland induced to take on abnormal growth by reason of this irritation?*

DR. THOMAS TURNER, Passed Assistant-Surgeon in the Naval Laboratory, has seen old sailors cut potatoes into slices, and then pack them in a barrel with molasses. The molasses preserves the potatoes, and the sailors eat them raw, as an anti-scorbutic.—*Hamilton's Military Surgery.*

CIMICIFUGA RACEMOSA.

SIMPSON, PARRISH AND DAVIS.

[In looking over a recent file of the *Medical and Surgical Reporter*, (Feb. 16th, 1861,) our attention has been attracted by an article from the pen of Mr. EDWARD PARRISH, one of the most eminent of American Pharmacutists; but in which he displays a want of familiarity with the literature of his profession, hard to account for on any hypothesis at all flattering to himself. If we mistake not, Prof. P. still holds his chair in the Philadelphia College of Pharmacy, and is honorably connected with the American Pharmaceutical Association, as well as with other home organizations. Yet in the course of his article, which is composed of therapeutical and pharmaceutical notes on *Cimicifuga*, occurs the following:

“The results, in this case, seem to indicate a trial of cimicifuga in anomalous cases of nervous disorder resisting ordinary stimulant and sedative treatment, and the many cases of chorea and rheumatism on record in which it has been found effectual, the testimony now coming across the water from the distinguished Edinburgh Professor, who has used it successfully in puerperal hypochondriasis, must draw increased attention to it as filling up a gap in the *materia medica*. Of the drug itself, too little is known by practitioners, who, in their daily rounds, pass by its nodding racemes projecting above the fence-tops, from Canada to Florida, without the least chagrin that some of its most valuable adaptations should be first brought to notice in a foreign land.”

Of the merit and value of these strictures, the reader may easily satisfy himself, by a comparison of the subjoined, reprinted from the first volume of the *Transactions of the American Medical Association*, and the article of Prof. Simpson, among our *Selections*. Dr. Simpson will be found to have done American Pharmacy fuller justice than its Philadelphia representative, though he, by quoting an isolated sentence from the original report, makes the writer father an exaggeration, which exists only by this unintentional garbling. It will be seen, by a perusal of the Report, that the sentence quoted by Prof. Simpson, viz: “We have no more doubt of

the efficacy of *Cinicifuga* in the early stages of acute rheumatism, than of the power of vaccination as a preventive of variola," is by no means the broad, sweeping assertion, with its context, that it seems isolated and unsustained.

What we had particularly in mind, however, in noticing this matter, is the lamentable tendency so prevalent in the profession to eagerly swallow any, the most exaggerated and monstrous, doctrines, inventions, remedies and *isms*, if they but come from "across the water." What divine virtue there is in a sea-voyage for a new fact or truth, we are unable to discern; but no one of our readers will be at a loss to call to mind more than one even ludicrous instance of this tendency to worship anything foreign—instances where, as in the present case, the matter originated here, had been transported to Great Britain or the Continent, translated, re-vamped and shipped back again, to be eagerly welcomed, re-translated and lauded by the very men, and those only, who had ignored its claims while it was yet untraveled. In this instance, it will be seen that not a single one of the adaptations of *Cinicifuga*, valuable or otherwise, was "first brought to notice in a foreign land;" and it is difficult to see how Prof. PARRISH could arrive at such a conclusion, with Prof. Simpson's article before him.—JUN. ED. EXAMINER.]

CINICIFUGA RACEMOSA: *Actæa Racemosa*. *Black Cohosh*. Polypetalous exogenous. *Nat. Ord.* Ranunculaceæ. *Sex. Syst.* Polyandria di Pentagynia.

The stem is simple, herbaceous, somewhat furrowed, from three to six feet high; flowers in a long terminal raceme with oftentimes one or more shorter ones at the base. The flowers are white, on short pedicles with small subulate bracts: calyx white, sepals four, rounded; petals small, shorter than the sepals, and cleft at their apex; stamens numerous with yellow anthers; pistil oval, with a lateral sessile stigma; the capsule is ovoid, dry, with one cell, containing many small flat seeds. The leaves are alternate, one nearly radical, large, decompose, and tripinnate; upper one bi-pinnate. Leaflets sessile, opposite, three to seven, dentate. The root is large, black, and fleshy, with numerous long, slender fibres. The root only is considered medicinal.

It has been used to a limited extent by the profession for many years; but its real properties are little understood. Indeed we are satisfied that the prevailing opinions in regard to its action on the system are entirely erroneous. Thus, we are told by Drs. Wood, Griffith, Lee, Williams, and others, that it is a stimulating tonic. By Dr. Chapman it is ranked among the expectorants; and by Dr. Martyn Payne in his recent *Manual of Materia Medica*, it is represented as a stimulant diaphoretic. In the *United States Dispensatory*, the almost universally received standard of authority in this country, we are told that the '*Cimicifuga* unites with a tonic power, the property of stimulating the secretions, particularly those of the skin, kidneys, and pulmonary mucous membrane.' None of these opinions accord with our own experience in the use of this root; and we have used several pounds of it during the last few years, and in a considerable variety of diseases. We have never known it to produce a perceptible increase in any of the secretions of the system, nor has it the slightest stimulating qualities. But we have uniformly found it to lessen the frequency and force of the pulse, to soothe pain, and allay irritability. In a word, it is one of the most purely sedative agents we possess, making its impression chiefly on the nervous system of organic life. In large doses it produces vertigo, dimness of vision, and a depression of the pulse, which remain for a considerable time. These observations are directly confirmed by the experience of Dr. F. N. Johnson of this city, who has used it freely, both in his extensive private practice, and in the wards of the New York Hospital. He informs us that he has at different times selected more than twenty cases of acute inflammatory rheumatism, including the severest forms of that painful affection, and treated them with the *Cimicifuga*, for the purpose of fully testing its powers in that disease. The results were satisfactory in the highest degree, every vestige of the disease disappearing in from *two to eight or ten* days, without inducing any sensible evacuation, or leaving behind a single bad symptom. These trials have been repeated by Dr. Johnson, myself and others, until we have no more doubt of the efficacy of *Cimicifuga* in the

early stages of acute rheumatism, than we have of the power of vaccination as a preventive of variola. Dr. Johnson found the most acute and severe cases that ever came under his observation, to yield to its influence, not only more speedily, but more perfectly and with less danger of metastasis to other organs, than to any other form of treatment.

The only visible effects of the medicine are diminution of the force and frequency of the pulse, disappearance of the arthritic pains and inflammation, with occasional vertigo or disposition to fall on attempting to assume the erect attitude. We place the more reliance on these observations of Dr. Johnson, not only on account of his deservedly high reputation as a practitioner, but because many of his trials were made in the wards of the hospital, where cases could be selected, and all the elements of comparison were much more perfect than in private practice. We are well aware that many other practitioners have used the *Cimicifuga* in rheumatism without the same happy results. But in every instance where we have had the opportunity to make the inquiry, we have found that they had mistaken the kind of cases, and the stage of the disease to which it is most applicable. From its being almost uniformly represented by medical writers as a stimulating excitor of the various secretions, the inference has been very naturally drawn, that it could only be applicable in the sub-acute and chronic forms of the disease, or at most, in the latter stages of the acute form. Whereas, in truth, these are precisely the class of cases in which it proves of comparatively little value; for its curative powers being dependent entirely on its *sedative* influence, exerted (as we believe), through the nerves of organic life, it can only prove effectual when given in the early stages, before the occurrence of those fibrinous deposits around the ligaments and parts affected, which so generally occur in the latter stages of protracted acute cases, and in all the more chronic forms of the disease. It may prove serviceable as an adjuvant to other remedies even in such cases, but it is only in the acute form of rheumatism that its own complete curative power is exhibited. And, indeed, we may say, as expressed to us by Dr. Johnson

a few days since, that *the more acute the disease, the more prompt and decided will be the action of the remedy*. The properties we have attributed to the *Cimicifuga*, will readily suggest its applicability to the treatment of many other forms of disease besides rheumatism. And experience has already proved it valuable in some forms of chorea, hysteria, and other nervous affections.

The first paper concerning its effects in the treatment of chorea which has fallen under our notice, was from Dr. Young in the *American Journal of Medical Sciences*, vol. ix. p. 310, Feb., 1832. He there details several cases of this disease promptly and effectually cured by *Cimicifuga* alone. Since that time so many other similar cases have been reported by different writers, that we can no longer doubt its efficacy in this and kindred diseases when judiciously administered. We say judiciously, because it is not alike applicable to all the cases of any form of disease. Thus we may have chorea from the presence of worms or indigestible food, or other irritating matters in the alimentary canal, and no rational man ought to expect the cure of such cases by using a remedy that generally induces no sensible evacuations whatever. But in all those cases arising from undue irritability or mobility of the nervous system, a state so common in girls about the period when the menses ought to make their appearance, and which may be induced in both sexes by exposures to cold or other accidental influences, and even in those cases which may be kept up by what has been termed habit, after irritating matters that might have existed in the alimentary canal have been removed, we shall find the most decisive and successful results from the use of *Cimicifuga* in proper doses.

We recollect being called, about two years since, to see a young man several miles in the country, who was laboring under the most severe form of chorea that we ever saw. He was almost constantly in a state of irregular and severe muscular action; so much so that he could scarcely walk across the room, and sometimes so violent that it took two or three persons to keep him from injuring himself. The intervals were so short and imperfect that he scarcely got any

sleep for weeks. A neighboring physician, under whose care he was, had tried all the ordinary remedies, including bleeding, blistering, emetics, cathartics, anodynes, antispasmodics, stimulants, and alteratives, both mineral and vegetable. On a careful examination I could not detect any local or inflammatory affection; almost the only indication of a morbid state consisting in a moderate increase of heat in the head. The case had plainly originated from a sudden exposure to cold while warm from hard labour. I directed the free use of a decoction of the *Cimicifuga* root, and the pouring of a stream of cold water over the occiput every hour until my next visit. Thirty-six hours after, I found him lying quietly in bed, considerably exhausted, and with a pulse not exceeding 60 per minute. The cold water was discontinued, the decoction given less freely; no return of the disease took place, and in a week or ten days the young man was again engaged in his labour. How much of the prompt and decisive effect was produced by the cold water, and how much by the *Cimicifuga*, the reader can judge for himself. We have no doubt but the influence of both was important, the first temporary, the latter permanent.

But it was in pulmonary affections, particularly in the early stages of Phthisis, that this remedy first attracted the notice of the profession. So early as 1823, Dr. J. S. Garden, of Charlotte, Va., published a paper in the *Medical Recorder*, in which he details its influence in his own case, as well as in several of his patients. In reference to his own case he says: "Shortly after commencing the use of this remedy, the hectic paroxysms, which had attended me some time previously, were entirely checked, the nocturnal evacuations from the surface of the body began to diminish, the expectoration of a fluid from the vessels of the lungs and bronchia, resembling pus in appearance, was speedily arrested; the cough became much less troublesome and less frequent. My pulse, which for some time before, was never lower than 100 to 120 pulsations to the minute, was reduced to the medium standard; the pain in my right breast and side left me, my strength and appetite began to improve, and I speedily abandoned the use

of all medicines or other means, except attention to regimen and exercise. A period of twelve months or more had elapsed, from my primitive ill health to the time of using this medicine, during which time I had been bled freely and copiously, kept up a constant discharge from the surface of my breast by the use of blisters, setons, etc., and adhered strictly to a vegetable regimen, but without any relief." And in regard to the *modus operandi* of the medicine, he says: "It certainly possesses the power in an eminent degree of lessening arterial action, and at the same time imparting tone and energy to the general system." In vol. V., new series, of the *American Journal of Medical Sciences*, 1843, the same writer again recurs to the use of this remedy, the utility of which only seems to have been confirmed by his subsequent experience of twenty years. In vol. IV. of the same journal we have an article from Dr. Charles C. Hildreth, of Zanesville, Ohio, on the use of the *Cimicifuga* in phthisis pulmonalis, in which he details three cases of this disease successfully treated by this remedy in conjunction with Iodine. He agrees fully with Dr. Garden, whose opinion in regard to its mode of action and effects we have already quoted. We have never relied on this remedy alone in treatment of any of the forms of pulmonary disease; but we have used it much in all the forms of tuberculous or scrofulous diseases, and with the most gratifying results, when combined with the preparations of Iodine. For some cases, and further observations on this point, we must refer the reader to an article in the *New York Journal of Medicine and Collateral Sciences*, vol. V. p. 314; premising, however, that since that article was written, our experience has satisfied us that the remedy is neither a stimulant or sensible promoter of the secretions, but a most valuable *sedative* in the true sense of that term. We have not been able to verify its reputed specific action on the uterus; though in many cases of severe headache, apparently depending on simple irritability of the brain in females of delicate habits, I have prescribed a decoction of the root in doses of a wineglassful every three or four hours, with the most prompt relief. Several attempts have been made by different individuals to

analyze the root, without any very satisfactory results. It is certain, however, that it yields its specific virtues to alcohol more perfectly than to water. Hence it should generally be used in the form of saturated tincture, or in substance, pulverized. The first is prepared by macerating four ounces of the root in a pint of diluted alcohol, of which from thirty to sixty drops may be given every one, two, four, or six hours, according to the nature and severity of the case.

In acute rheumatism, from thirty to sixty gtt. of the tinct., or twenty grs. of the powdered root should be given to an adult every two hours, until its effects are manifest.

ARTICLE IV.

CONSERVATIVE SURGERY.

A Case by H. WANZER, M. D., of Chicago, Ill.

The following case may serve to show how much may often be gained for the benefit of a patient, by not being in too much haste to amputate injured members.

M. B—, a boy aged fourteen years, was brought to my office, May 4, 1861. He had been incautiously manipulating with a circular saw, during which, the left hand became engaged, and the index and middle fingers nearly amputated, at the base of the first phalanges. The skin, fascia, bones, flexor tendons, and digital arteries were divided, so that the ends of the fingers could be easily turned over upon the dorsal surface, leaving only a connection of integument and cellular tissue. The ring and little fingers were injured, but not so severely.

But for the solicitation of one of my assistants, I should have amputated the index and middle fingers. I, however, consented to bring the parts in apposition and retained them by sutures and adhesive straps; gave him a full dose of morphia to allay pain and induce sleep. The next day I found him suffering considerable pain and fever, and the hand considerably swollen; ordered an alterative with Dover's Powder internally, with cold water dressings to the hand.

May 6th—Patient more comfortable, and hand less swollen. Continued the cold water dressing, and a few grains of Pulv. Doveri at night to procure sleep.

May 10th—Removed the sutures and found that none of the surfaces had united by the first intention, but had commenced granulating with considerable purulent discharge. I enjoined strict cleanliness with dressings of simple cerate.

From this time the process of reparation went on regularly until the fingers were perfectly restored except a part of the last phalanx of the index finger.

ARTICLE V.

CASE OF SUPERFÆTATION.—PLACENTA PRÆVIA.

EDITORS EXAMINER:—We have at present a case under treatment, of what we call *Superfætation*, existing for some two years or more, and since the commencement of which, the female has conceived and brought forth a healthy child, at full term, and now six months old. The sac finally pointed externally, and was opened; but the point of interest is, that a large quantity of hair has escaped, varying in length, from two to ten or twelve inches. Please account for the length of the hair. I have it for inspection.

I have had also a case of *Placenta Prævia*, where the fœtus was completely enveloped in the placenta, as in a shut sack; where ergot of known strength had no effect, and upon attempting to introduce the hand, for the purpose of turning it was found impossible to penetrate the placental mass. As a last resort, the placenta was ruptured over the vertex—that being the presenting part—and the child delivered with the forceps. The child was of course lost from previous hemorrhage, but the mother recovered without a bad symptom. I should state that after the child was delivered, I had to introduce the hand and carefully detach the adherent placenta.

Yours respectfully,

J. H. APPERSON.

The Clinique.

MARINE HOSPITAL—SERVICE DR. ISHAM.

Cases reported by A. D. ROUSE, Student of Medicine.

I. *Complete Amaurosis : Recovery.*—Wm. Smith, age 34, native of Sweden, good constitution, temperate habits, was admitted May 19. Has never had any serious illness, but for the last nine years has been troubled, at intervals, with severe attacks of headache, for which he found no relief. During this period of time, his appetite was deranged, and his bowels habitually constive. On the 18th of May, while standing at the helm, he was seized with a severe itching, fulness and burning, with diminution of sight in the right eye; for instance, as he looked at the compass he found his vision variable and defective. By the next day, (that of his admission) these symptoms had subsided, leaving the eye entirely blind. Immediately, the left eye began to be similarly affected, and by the 21st, almost total blindness had occurred, the patient not being sensible of the sudden approach of a lighted candle to the face. Examination revealed the media of the eye healthy, slight congestion of the retina, pupils very sluggish, and unnatural fulness of the eyes; tongue morbidly clean, bowels constipated, appetite poor, pulse 85; diagnosis, amaurosis. This was confirmed by an examination of the patient by the oculist, Dr. Holmes.

Believing that the disease depended upon a congestion of the nervous optic apparatus, produced by disorder of the digestive organs, distinguished by the French under the name of *obusissement*, the Prof. placed him upon treatment accordingly. Wet cups were repeatedly applied to the temples, and a succession of blisters applied to the forehead, nape of neck, and behind the ears. He was purged with combined doses of calomel, comp. ext. of colocynth, and aloes, repeatedly, and placed subsequently upon the internal use of iodide of potas-

sium in eight gr. doses every 2 hours. His sight was rapidly restored, and June 3d the patient could note the time of day upon the watch.

June 8th—Discharged *cured*.

II. *Acute Pleurisy: Recovery.*—C. P. J., æt 37, of strong constitution, native of Sweden, was admitted into Marine Hospital, June 5th. No hereditary predisposition to pulmonary disease traceable; has enjoyed good health until the present attack of illness. On the 27th of May, after exposure to wet, he was seized with a chill which lasted for two hours, followed by a fever; these symptoms were succeeded by a cough and a sharp pain, one inch below the left nipple, darting through to the back, rendering him in a short time unable to inhale a free breath. The dyspnœa and local symptoms increased in severity, but the febrile symptoms had somewhat abated on admission. No expectoration with cough. Physical examination—nutrition fair; left chest does not expand upon forcible inspiration, and measures one inch more than right. Vocal vibrations are not felt upon the left chest, below the level of the angle of the scapula; on percussion the right chest is resonant throughout; left chest, laterally, dullness from the fourth rib downward—posteriorly, flatness below the angle of scapula; respiration of right chest, *puerile*; on listening over the dull surface of left chest respiration is entirely wanting, and strongly increased vocal resonance; œgophony is present marked by the sixth rib; no friction sound or crepitating murmur is distinguished; no bronchial inspiration; skin dry; tongue furred; pulse 102, of natural strength; no appetite; bowels constipated; urine scanty, and loaded with urates.

June 7. Dyspnœa and pain much relieved; pulse 90, and feeble; physical signs the same.

June 19. The extent of dullness, œgophony, and vocal resonance sensibly decreased, and respiratory murmurs are faintly heard, but friction sounds plainly distinguished over the extent of surface marked by previous dullness; pulse 76; pain quite gone.

June 20. Friction sounds absent; slight dulness remaining over base of left chest; respiratory murmur heard throughout the lung, and pain entirely absent; patient convalescing; pulse 64; treatment prescribed was the combined use of squills, digitalis, and mercury, and flying blisters to the chest.

The above was a case of uncomplicated pleuritis, with effusion and sufficient exudation of serum to so compress the lung as to destroy the respiratory murmur. The subsequent absorption of this allowed the pleural surfaces to come into contact, developing the friction sound which was heard late in the progress of the case. The diminished action of the left lung was counterbalanced by the increased action of the right, as evidenced by the puerile respiration.

III. *Syphilitic Rupia*.—F. B., æt 22, remarkably strong, weight 160, was admitted June 11.

In the fall of '59 he contracted a chancre on the inferior and external surface of the prepuce, which was followed in a few days by buboes in *both* groins. These appear to have been indolent and non-suppurating, generally following indurated chancres. For these he was treated in Galveston, Texas, for two or three weeks, and pronounced cured. He has been engaged in the lumber trade in that climate most of the time since, and necessarily exposed in the water very frequently.

About six months since there appeared a bulla upon the superciliary ridge, which soon became purulent and formed a crust, immediately followed by others of like character, until the whole upper part of the face was covered by them. They were of a dirty, brownish color, with ulcerated surfaces beneath. Crops soon appeared upon the body, and more especially upon the arms. As they heal they leave corresponding sized cicatrices of a circular form, wrinkled and extremely puckered in the centre, and of a copper color.

The disease was a well marked syphiloderma, and for some time confined to the face. The most remarkable fact is that his general health was not disturbed in a great degree, he only complaining of a lack of muscular energy whenever the

eruption appeared. His skin presents an unnatural dirty brownish tinge, marked by these spots of deeper color, indicating the cicatrization of the ulcers before mentioned. He has now remaining but one crust, which does not increase in size, gives no discharge, as is usual, of ichorous matter, and has an accompanying sore throat or laryngitis, but no ulceration. The epitrochlear, post cervical, and inguinal glands are enlarged. The disease has rapidly yielded to treatment. On account of the otherwise good condition of the patient, so unusual in those afflicted with rupia, the Prof. prescribed the internal use of the prot-iodide of mercury, with the happiest results, instead of the iodide of potass, as is usually recommended. The throat was touched with a two-grain solution of nit. of silver, and he has employed sulphur baths twice or three times a week.

IV. *Erythema; produced by local irritation.*—P. C., a native of England, æt 43, was admitted June 19. Had syphilis 16 years ago, for which he was treated successfully in the Dreadnaught Hospital ship. Is of a robust constitution, plethoric habit, and has always enjoyed good health. Two years ago he suffered three weeks from an attack similar to the present one, produced by work in a harvest field, and again last October, from poisoning by the ivy vine when fishing. His present difficulty he attributes to the irritation of dust whilst loading a vessel with grain, the 9th of June.

The face, neck, arms and scrotum presented, upon admission, a shining, red, inflamed and swollen appearance, more marked where the integuments are thin, attended with itching and a painful sense of fulness. The face and neck were indeed of a dusky purplish color, closely resembling erysipelas, except in the distension of the subcutaneous areolar tissue. Upon the scrotum, portions of the neck, bend of the arms, and the eyelids, the skin was cracked, and the lines formed a net-work, more or less raised by the edges of the ruptured dermis being inflamed and swollen; from these fissures exuded a thin, ichorous discharge of serous fluid, which formed crusts, and would subsequently rub off with scales of the

epidermis, giving the eruption in these places the appearance of eczema. In other places the disease was less severe, for instance, upon the thicker integuments of the outside of the arms, occurring in patches somewhat papulous, terminating by exfoliation of the epidermis in thin scales or furfuraceous desquamation.

June 29.—Patient was discharged cured.

The treatment was by the use of saline laxatives, and the topical use of a weak solution of sulphuret of potash; at night, a chloroform ointment was used to allay the itching.

MERCY HOSPITAL—MEDICAL WARDS.

Service Prof. N. S. DAVIS, M. D., Visiting Physician.

Reported for the EXAMINER.

I. *Rubeola*.—Owing to the want of accommodations at their barracks, some fifteen or twenty members of the Irish Brigade have been admitted into the Hospital during the month, suffering from the measles, and in some cases complicated with other diseases,—gonorrhœa, pneumonia, diarrhœa, etc. Ample opportunity has thus been furnished students to become familiar with the diagnosis and treatment of this usually simple malady. *Usually* simple—but owing to its liability to be incorrectly diagnosed, as in more than one case under the lecturer's own observation, where it has been mistaken for *variola*,—or from its tendency to occur as an epidemic, as in the present instance, and as in nearly all our camps, worthy more than a mere passing mention.

The first stages of the *Eruptive Fevers* are not unlike those of any idiopathic fever, except in their duration. There is the same uncomfortable feeling, with a disposition to stretch and yawn, and an indisposition to exertion; a want of elasticity and animation, the same fugitive aches, in the head, in the limbs, in the back or body, the bad taste in the mouth, the general languor and enervated condition of the muscular system, alike preceding the periodical, the typhoid, and the eruptive fevers. In the first, these symptoms may last only

two or three days before the occurrence of the premonitory chill, followed by a well-marked febrile movement and the characteristic remissions or intermissions. In the typhoid class, the chill will usually be omitted, but the period between the first uncomfortable feelings and the actual yielding to the attack and taking to bed, will be lengthened to a week or more—and even then your patient may not feel very sick on his bed, but may fancy himself able to be about his ordinary occupations, until he tries to make some continued exertion.

The onset of the Eruptive Fevers, on the contrary, is, if pure and uncomplicated, abrupt and well-marked; commencing with a distinct febrile movement, preceded by a half-hour or so of chilliness—not a marked chill—during which the patient finds the fire agreeable, but soon feels flushes of heat alternating with his slight chills, which flushes soon develop into a fever, accompanied by thirst, heat of skin, accelerated pulse, headache, bad tasting mouth, loss of appetite, etc. This difference in the duration of the premonitory symptoms, furnishes the first guide to a differential diagnosis, as between the three classes mentioned.

Recollect that the patient is attacked with fever aside from the local eruption, which fever is to be distinguished from periodical fevers by absence of any marked chill, from continued fevers by the rapidity of its progress; in a word, that it has the suddenness of the periodical fever without its chill.

To diagnose between the varieties of exanthems, however, is, in the early stage, a more difficult and delicate task, and more especially so before the eruption has made its appearance—indeed, when the eruption is marked and full the diagnosis to the intelligent student, is comparatively easy. The characteristic of Measles is its *cough*—hard, dry, harsh and hollow, incessant and sometimes so violent as to considerably exhaust the patient; with this there is soreness and pain in the throat and thorax behind the sternum; there is huskiness of voice, even to complete aphonia, as in *No. ten*; there is sneezing, and sometimes almost uncontrollable epistaxis, as in *No. five*, who has lost not less than thirty-six to forty ounces of blood during the last forty-eight hours; there

is every symptom, in short, of a congested, irritable condition of the mucous surfaces of the head and chest generally; the eyes are red and watery, and the cellular tissue below the eye swollen and infiltrated, while exposure to the light is painful. The patient will tell you he has taken a violent cold, and all his symptoms are such as to induce him to such a belief. But about the fourth day after the commencement of the attack, the appearance of a *rash*, as it is termed, determines the question. Up to the second day, some doubts may be entertained as to whether the disease be not scarlatina; but if we remember that the rash or eruption in this appears pretty nearly uniformly on the second day,—that there is no cough or coryza, that the pulse is very rapid, this being a marked feature,—the pulse frequently attaining 120, and out of proportion to the amount of fever,—if we further remember that scarlatina is marked by the swelling and a bright scarlet flush of the fauces, palate, uvula and tonsils, by tumefaction of the lymphatic glands of the neck and jaws, and not unfrequently by nausea,—if we keep these facts in mind, it will be easy to avoid the alarm and anxiety which the announcement of this household scourge never fails to carry to the parent.

If the fever, however, continues another day, or more than forty-eight hours from its commencement, without eruption, if there be severe headache, much nausea, intolerable pain in the lumbar region, a peculiarly flushed face, much depression of spirits, or delirium, or stupor, with the pulse about 100, and the rash appearing within the first seventy-two hours after the febrile symptoms, small-pox may be pretty confidently looked for.

Called to a patient in the eruptive stage, and it is then that you will most likely be sent for, you will learn something from the attendants on the points already mentioned; but a careful examination of the eruption itself will now form your most trustworthy guide. In scarlatina the rash or efflorescence will be found of a bright red color, very uniformly and generally diffused over the whole body, and consisting, on minute examination, of innumerable small points, without any percepti-

ble elevation or roughness,—the color disappearing temporarily on pressure. Its course is rapid, spreading in twenty-four hours over the face, neck, body and extremities, successively, continuously and symmetrically. In small-pox the eruption commences by small papule, sensibly elevated above the surrounding skin, usually of the forehead, face and wrists, and is accompanied by a distinct remission of all the febrile symptoms, the pain in the back, headache, etc., and the patient thinks he is getting well. I wish to impress on your minds that the eruption of small-pox may be distinguished by the touch as soon as it appears to the eye, and that this is true neither of measles nor scarlatina. The variolous eruption is a distinctly elevated pustule, prominent and pointed, feeling like a hard nub under the finger, distinct and isolated, and unlike the uniform rash of scarlatina or the patches of measles, neither of which can be detected by the most delicate touch, as elevated, though they may appear so to the eye. I dwell upon this, because every year there are mistakes made by those who should know better; and rubeculous patients are sent to the pest-house, or variolous ones allowed to remain in thickly-crowded tenements.

The measly eruption is easily distinguishable from that of variola and scarlatina in not being raised above the skin—in appearing in irregular patches of two or more papule with patches of natural skin between, and by being of a dingy red color. In measles and scarlatina there is no remission of fever until the eruption subsides; while in small-pox there is a remission on the appearance of the eruption, and a recurrence of it at the maturative stage. The measly eruption increases for about forty-eight hours after its commencement on the fourth day of the fever, attains its maximum about the third day (the seventh after the fever sets in), is stationary during the fourth day, and is about two days in disappearing, making the attack, in all, about ten or twelve days in duration—of which four days is occupied by the initiatory fever, and from six to eight days by the eruptive stage, which last usually passes off by a desquamation of the skin, decline of the fever, and abatement of the cough, pain and soreness of the bronchial passages.

With the *treatment* of measles I need not detain you long. You will not, in obedience to the popular error that the greater the disease on the skin, the more thoroughly purified the system; you will not, I say, bundle your patient up in a warm bed in a close, warm room, nor feed him on toddy and hot drinks. You may, it is true, in this way increase the fever and the eruption; but since there is no virus to be eliminated in measles nor scarlatina, as there is in small pox, this is unnecessary, and so far as it tends to make your patient uncomfortable, and exhaust him by too free diaphoresis, it is injurious. You will make your patient's condition comfortable, in a well ventilated room, in a bed with the ordinary amount of clothing on, and not exposed to a current of air. You will regulate his diet, confining it to the plain, simple, easily-digested articles of food and drink: gruels, meat-broths, panadas, arrow-root, toasted bread, and a little solid food, if it is craved; and for drinks, jelly-waters, lemonade, barley-toast, or rice-water, if there is no diarrhœa. Little or no medicine is needed, hygienic regulations being usually amply sufficient. The cough and bronchial troubles may be alleviated by the use of the ordinary cough mixture of honey of squills, senega and antimony, blood-root and paregoric, in teaspoonful doses as may be necessary; and to ensure sleep and freedom from restlessness, as well as to lessen the congestion and irritation of the mucous structures, six or eight grains of Dover's Powder and two grains of James' Powder may be given at bedtime. You will occasionally meet cases in which a more active interference will be demanded; cases in which there will be so much soreness behind the sternum and on each side, as to very much distress the patient,—the cough will be attended with an abundant expectoration of a thick, tenacious, ropy mucus, marking a degree of inflammation, supervening on what is ordinarily simple congestion,—the pain in the head will be more violent, the skin dry and husky to the touch,—pulse about 100, and all the febrile symptoms exaggerated. The necessity for medical treatment is now imperative. To your former prescription you may add $\text{f}\text{ʒj}$ of *Veratrum Viride* to $\text{f}\text{ʒij}$ of the cough mixture, and give $\text{f}\text{ʒj}$ every four hours, thus

lowering the heart's action, and moderating all the symptoms dependent on increased force and rapidity of the circulation. You may also add, for two or three nights, grsij of calomel to the powder of ipecac, opium and antimony, with a view of exciting and increasing the action of the secretory and absorbent systems. There will, probably, be some degree of costiveness, with which it is not well to interfere for two or three days; after which—the use of these medicines being continued meanwhile—a saline cathartic or a dose of oil may be administered, the bowels opened, and the specific alterant and sedative agents omitted, the indications for their use having subsided. In only one of these patients (*No. ten*) has it been necessary to resort to any other than the treatment just given. This patient is of a full, plethoric habit, face flushed and turgid, eyes injected, and conjunctiva and cellular tissue beneath tumefied and congested; the nose also, is swollen and red, as is a space surrounding the alæ, and the pulse is full and bounding in the temporal and carotid arteries. The degree of cephalic congestion here, was so violent as to cause hæmorrhage from the nose, and to such an extent as to require interference. The usual astringents, powdered matico, tannin, etc., were used by the house-surgeon, with temporary success: but we were finally obliged to resort to the *Veratrum* before the epistaxis was completely checked.

I have detained you, probably, as long as is profitable, on this subject, and will only add a word on a variety of measles, which bears the same relation to the ordinary simple form, as variola does to varioloid, or scarlatina *simplex* to scarlatina *anginosa*. I mean a form of measles occurring in malarious regions, or, in cities, in the children of the poorer inhabitants of the slums and alleys,—children raised in dark cellars, in impure air, in a state of squalid wretchedness and rags and hunger. I am glad to be able to say that I have never met over half a dozen cases of this form in this city. The symptoms differ from those of the type before us, in presenting a livid hue of the face and lips,—pulse generally small and feeble,—extremities cold,—a sense of oppression in the præcordial region, with laborious breathing, the

stomach is irritable, and the intestinal canal shares in the affection, so that the abdomen is tender, and there is both vomiting and purging. The eruption assumes a petechial or ecchymosed appearance, showing a disorganization of the blood, the result both of a malarial poison and of the apoplectic engorgement of the lung, which engorgement is passive, and due to a diminished susceptibility and relaxation of the capillaries of the lung, and not to a direct influx of blood.

Though in civil practice in cities, these cases are rare, and even in malarious districts are not common, yet I should expect to find them occurring frequently in those divisions of our army, posted in the unhealthy swamp lands of the Ohio and Mississippi Vallies, if measles became epidemic among them.

I need not tell you, after recounting such symptoms, that the danger is imminent, and that the promptest measures are demanded. The rapid saturation of the blood with the chlorates or the chlorides, without revolting the stomach, coupled with the exhibition of prompt tonics will be found the most reliable mode of treatment. I have found marked benefit from quinine in three to five grain doses, and chloride of sodium twelve to fifteen grains, repeated every hour during the height of the attack. I have also used the chlorate of potash, instead of common salt, with equally good results.

II. *Typhoid Fever, with threatened Coxalgia supervening on Recovery.*—J. D., an English lad, aged nineteen, was admitted May 16th. Attention was again called to his case, which had previously occupied a portion of a clinique in a consideration of the disease—typhoid fever—under which he was then laboring; but now, during his convalescence, a new and interesting feature had presented itself.

The history of the case, as given at the bedside, is briefly as follows: For a week or ten days, previous to his admission, he had been feeling unwell, with the ordinary, well-known symptoms—loss of appetite, some headache and pain of a dull, heavy character in the back and limbs, occasional nausea, with slight creeping chills and a general feeling of lassitude and

weariness. This continuing for some days, he had taken pills, of a cathartic nature, every day for three days previous to his admission, and with the effect of producing an excessive action of the bowels, sometimes as many as a dozen discharges in twenty-four hours. The tongue was moderately coated, when examined by the class, countenance somewhat flushed, skin dry and husky, and pulse 90-100. The abdomen was rather tender on pressure, but the diarrhœa had been checked during the night by treatment. There was certainly nothing in the case to warrant the suspicion that a serious illness was impending; but the lecturer pointed out that the assemblage of symptoms marked a case of enteric fever, with inflammation of Peyer's glands and the solitary glands of the small intestines just on the verge of development. The inflammation was not yet manifest, but there was undoubtedly congestion,—an accumulation of blood in the glands, giving rise to irritation, subsequent inflammation, softening and ulceration; the mesenteric glands, and, of course, the mucous membranes of the intestines being pretty uniformly affected, as well as the spleen, liver, and other large organs, in the progress of the disease. Cases of this kind, where purgation has been resorted to, need to be sedulously watched, for there is always a tenacious tendency to diarrhœa present in the typhoid fevers.

The treatment resorted to was the use of an emulsion of turpentine and laudanum in f5j doses every four hours, to counteract and allay the morbid sensibility and exalted irritability along the course of the intestinal canal; and to incite an efficient action of the secretory system, and check the blood-degeneration, the fluid extract of *Asclepias Tuberosa* was given in f5j doses, with chlorate of potash grs v, every four hours, alternating with the emulsion. Subsequently, this latter was changed to Dover's Powder grs v, hyd. sub mur. grj, with a view of producing an alterative influence on the glandular secretions, and with good effect. The mercurial was discontinued after the first twenty-four hours, and the emulsion kept steadily in use, together with a single powder of ipecac and opium grs v, every night at bed-time; the patient continuing to improve, and leaving his bed May 25th.

May 31st. The class were again assembled at his bed side, to find the patient well, to all appearance. But the lecturer stated that during his visit, two or three days previous, D. had complained of soreness and stiffness in one hip, so much so as to prevent his walking about. The seat of the pain was in the gluteal region, just above the level of the trochanter, and about midway between the trochanter and the sacrum. At first, apprehended it was nothing more than a cellular abscess, such as frequently follow recovery from fevers. Ordered an infusion of acouite leaves and muriate of ammonia to be applied, as a discutient and anodyne, with the dissimilar object of dissipating the tumor, if not too far advanced, or of hastening its formation, if too much progressed to be dispersed. At subsequent visits, failed to notice any change, and on more careful examination found all the symptoms of a low grade of inflammation in the capsular ligament of the hip-joint: in other words, an incipient case of *coxalgia* or hip-joint disease, brought on, undoubtedly, by too severe and too prolonged exercise, while the system was still enfeebled and depressed. There was no pain while the patient lay quiet, but severe pain felt on pressure of the femur into the acetabulum, or by striking the knee sharply upwards, or by abduction of the limb. The case not having advanced far enough to warrant the use of the instrument, and the condition favoring, strict rest was enjoined, and the use of the lotion already mentioned, continued; blisters, issues and other counter-irritants being deemed inadvisable, on account of the already exhausted condition of the patient. A bland, nutritious diet was advised, but no further medication.

June 7th, discharged cured.

July 2d—Prof. ANDREWS, at his clinique at the *Mercy*, this morning, removed an epulo-canceroid tumor, from the lower jaw of a German woman, which had involved one of the submaxillary glands and the alveolar process of the four incisors—necessitating its excision.

Selections.

RHEUMATISM.

By B. WOODWARD, M. D., of Galesburg, Illinois.

From the Medical and Surgical Reporter.

Having for the past fifteen years had a great many cases of rheumatism to treat, I have, with the deepest earnestness and patience, sought to ascertain its nature, but it is only within the past four years that my mind has become at all settled on the subject, and since I have adopted my treatment to my view of the pathology I have not had cause to regret it. Observation and my own course of reasoning have led me to the adoption of the hypothesis, that *all constitutional diseases, in which swelling, pain, or convulsions are prominent symptoms, are of purely nervous origin, and point unmistakably to a derangement of the nervous system as a whole, or in some of its more important parts.*

The nerves, so far as we know, are the only tissues in the body capable of suffering or transmitting pain; when it is manifested in other parts, as in muscle, bone, or fascia, it is only from the ramifications of nerve-fibre to these parts. This view does not exclude those lesions or affections of the nervous centres which are marked by paralysis, in which no pain exists, and unless the derangements are such as to produce paralysis, there is always pain or convulsions or both where there is nervous derangement. I shall only endeavor, in the present paper, to establish this view, so far as rheumatism is concerned.

It is not easy to conceive of a constitutional disease, caused by a depravation of either solids or fluids of the body, without functional lesion, and, hardly, without organic. Yet we do find this to be the case in diseases of the nerves, as in neuralgia, in which pain and sometimes increased action of the circulatory system are the only abnormal conditions. This condition also obtains in the majority of cases of rheumatism in the early stages, and until the nervous derangement has produced other abnormal actions.

Those who contend for the acid theory, or the abnormal amount of fibrine in the blood, as the cause of rheumatism,

acknowledge that both the one or the other are often very rapidly formed and as rapidly disappear, but they have not proved that this is not caused by nervous action itself. Without calling on any to prove a negation, we may point to analagous cases to sustain ourselves.

Hydrophobia is a nervous disease of the purest type, and one of the products of the nervous irritation is the poison in the saliva. Where there is no constitutional disease, other than a temporary derangement of the nervous system, the urine becomes loaded with abnormal products, and all are familiar with the increased secretion of saliva, mucus and serum, as the case may be, arising from certain forms of nervous excitement, be the excitement of a healthy or unhealthy nature; and why may not an acid, or an increased quantity of fibrine, likewise depend upon nerve-irritation in rheumatism?

We have certain forms of rheumatism in which pain, paralysis, and atrophy are the only symptoms all through the history of the case, and these following each other in regular succession and, apparently, dependent on each other. * *

There is one form of so-called rheumatism which, if it do not depend upon nervous irritation, I do not know where to place it. I allude to rheumatism in a member after there has been fracture of a bone. This form is well known to every one who has treated many fractures, particularly of the femur and humerus, and I have often found it one of the most common and troublesome of the sequelæ; and, also, that it yields most readily to the action of the neurotic remedies. * * * * *

If rheumatism is not of nervous origin, why do we find woolen worn next to the skin to be one of the best prophylactics, and why are rubefacients so valuable? On the hypothesis that it is disease of the nerves, the usefulness of the treatment is easily explained, from the action on and through the cutaneous nerves. It may be urged that swelling of the parts, effusion, etc., militates against the view that the affection is nervous; but to my own mind it has no weight. Disease of the nerves does not and need not imply that the affection is uniform either in its nature or manifestations. It may, and doubtless is, governed, in great measure, by the nature of the tissue in which it appears, and also by the condition of the patient at the time of the attack. In one case it may result in atrophy of a part, while in another hypertrophy takes place.

There is no fact in physiology better established than that the nutrition of muscles is governed by nerve action, as well

as their motion and sensibility. Irritation of nerve tissue may as well cause swelling and effusion as paralysis of a nerve cause atrophy and wasting of muscles or other tissue. The cutaneous nerves are readily affected by causes acting from the surface, and it is not improbable that the disease in question is often produced by external irritation, as by cold or wet. This view does not necessarily imply that the disease must be confined to the cutaneous nerves, for the nervous system is so much a unit that, if one part, even on the surface, is affected, the deeper seated may quickly become involved.

The irritation occasioned by a slight wound of a fibre of nerve in a distant part may induce tetanus, which is a disease of the nerve centres.* Neuralgia, or painful disease of the nerves, as generally understood, is marked by pain of a peculiar character, and different from that of rheumatism; but this is no evidence that the rheumatism does not arise from nerve causes, for the same tissues are subject to different forms of disease. It is not possible, in the present state of our knowledge, to say what the peculiar condition of the nerves is, either in the one or the other disease, but pathologists may yet unravel the mystery. This, however, will not be done till we have found the right end of the skein.

If, together with the nature of nervous affections generally, and the nature of pain in rheumatism, we couple the evidence derived from therapeutics, it seems to me that we have as nearly-conclusive evidence, as the nature of the case will admit of, that all rheumatism is of a neurotic character; it may be from transient causes, or it may depend upon a diathesis. In the one case it will be acute, and yield more readily to treatment; while in the other it will be chronic, and difficult, if not impossible, to eradicate. We read of various kinds of rheumatism, and, among them, of the nervous; but the chief differences are made to depend upon the location. If it were an acid, or any other depravation of the blood, why is it not general instead of local? why does it change its place of attack? and why does it depend so much upon climatic and atmospheric causes for its return from time to time?

This paper is not intended to be declaratory, but suggestive, and these views are thrown out for examination. What, then, is the testimony of therapeutics? It may be given in a few words. Combine the testimony of all the best authors, and it is that "that class of remedies which act upon and through the nervous system are more to be relied on than any other, and sooner overcome the disease." * * * *

DR. SIMPSON ON ACTÆA RACEMOSA.

From the London Medical Times.

The *Actæa*, or *Cinicifuga Racemosa*, has been long spoken of as a remedy for rheumatism, and particularly in the more acute forms of the disease. In the edition of Gray's Supplement to the Pharmacopœias, published in 1821, you will find the use of it in rheumatism stated. Latterly it has been employed by some American physicians as their most valuable remedy in acute rheumatic fever. My very intelligent and excellent friend, Dr. Voris, of Rochelle, New York, told me two years ago, that since employing the tincture of actæa in rheumatic fever—and it is a very common disease in his district—he had seen the disease almost always cut short before the eighth or tenth day; the drug acting apparently as a simple antidote to the rheumatic poison, and curing without diuresis, diaphoresis, or any other discharge. The American physicians give a strong tincture of the root in acute rheumatism in doses of thirty to sixty drops every two, three, or four hours. It may be given, if you choose, along with alkaline salts, or other anti-rheumatic drugs. I have found it, in my case, repeatedly cure an attack of lumbago with wonderful rapidity. Some of the American practitioners who have written upon actæa, have spoken of its use in terms that are, no doubt, exaggerated. Thus, Dr. Davis, of Chicago, says, that, after much experience, he has no more doubt of the efficacy of actæa in the early stage of acute rheumatism, than he has of the power of vaccination as a preventive of small-pox. But our American brethren have used actæa also extensively in chorea and other anomalous forms of nervous disease. However unlike rheumatism chorea may look to the superficial observer, yet the able investigations of Dr. Begbie and other pathologists, have shown, as you are aware, an analogy, if not an identity, between the blood poison which produces rheumatism and that which produces chorea. Dr. Physic and Dr. Jesse Young, about thirty or more years ago, recommended actæa strongly in chorea. Latterly, Drs. Lindsey, Kirkbride, Otto, and others, have published their experience in favor of the same drug in this disease. In a case of anomalous and severe chorea of long standing, which was under my care some months ago, the actæa was given with excellent effect. The patient had been previously treated, both in France and in this country, with zinc, iron, arsenic, and all the usual remedies applied in this malady. But I have made all this long episode regarding the actæa, not so much to speak of its use in the preceding

diseases, as of its use in puerperal hypochondriasis and depression. A lady, the mother of several children, was twice the subject of the most painful mental despondency a month or two after delivery. On one of these occasions she was confined in London, and had the advice of several eminent physicians; but the disease took a very long and tiresome course, seemed to defy entirely all remedies, and gradually and very slowly terminated. On the last occasion on which the attack occurred, this patient was confined under my care here, and went home to England some weeks subsequently, perfectly well. She returned, however, in about a month, to Edinburgh in the lowest possible state of depression, a perfect picture of mental misery and unhappiness. I tried many plans to raise her out of this dark and gloomy state. All failed. At last, fancying from some of her symptoms and complaints that there might be a rheumatic element in the affection, I ordered her fifteen drops of the tincture of actæa thrice a day. After taking one dose she refused to continue it, as the drug had a taste so similar to laudanum, and as all opiates had always made her worse. On being re-assured that there was no opiate in the medicine, she recommenced, without any faith, however, in the results, as she had, in a great measure, lost faith in all remedial means. When I saw her next, some eight or ten days afterwards, she was altered and changed in a marvelous degree, but all for the better. On the third or fourth day, as she informed me, the cloud of misery which had been darkening her existence suddenly began to dissolve and dispel; and in a day or two more she felt perfectly herself again in gaiety, spirits, and energy. But nothing would induce her to give up the actæa for six or eight weeks longer; and the last time she passed through Edinburgh she told me that she had prescribed her own remedy to more than one melancholic subject with nearly as great success as she had used it in her own case.

FOREIGN ITEMS.—We condense the following extracts from DR. ELSBERG'S *Summary of Foreign Medical News* in the *Am. Medical Monthly* for June,—a most valuable and interesting department in that excellent periodical. In an article by Dr. CREDE, on the most efficient mode of removing the placenta, it is strongly insisted that the removal shall be the result of uterine action alone, restricting the introduction of the hand in the genitalia to exceptional, extremely rare and urgent cases. His method consists in excitation and increase of uterine activity by friction and irritation of the fundus and body of the uterus with the hand through the abdominal cov-

ering. This manipulation must be performed at once after the birth of the child. At first the friction must be gentle; gradually we may increase it; the author says he has in innumerable cases, without a single exception, succeeded in a quarter or half hour in inducing the necessary artificial contraction, even where there was previously ever so slight uterine action. When the contraction attains its maximum force, he grasps the whole uterus in such a manner that the fundus lies in the hollow of his hand, and the five fingers around the body may still exert a gentle pressure. He says he felt under his fingers the placenta leave the womb in every case; and generally this occurred with such a degree of force, that it at once protruded from the external genitalia, or at least was found lying in the lower part of the vagina. The patient suffers no other inconvenience than the increased pain accompanying the more forcible contraction, which, however, is more than compensated for, by its rendering unnecessary the introduction of the finger or hand in the parts already sore and morbidly sensitive by the previous tension and traction during labor. The womb afterwards remains well contracted; post-partum hæmorrhage is not so likely to occur; inversion can never take place with a regular contraction; while, with the usual proceeding for taking away the after-birth, the greatest care does not preclude the possibility of its occurrence.

—PROF. MARTIN continues to meet with success in Transfusion of Blood in Obstetrical Practice. His last reported case was a primipara, æt 20, eight months gone, very anæmic from intra-uterine hæmorrhage, child dead, liquor amnion gone, and after a fruitless attempt at relief by tampon and stimulants, during which the fundus rose higher and higher; pulse became imperceptible; countenance fell; swooning ensued; temperature of body sunk, transfusion was decided on. Blood was taken from the median vein of a strong, healthy man-servant. After laying bare, by a cutaneous incision 4-5 lines long, the median vein of the right arm of the woman, the flat trocar was introduced, and the blood of the man, as it ran into a cup placed in water of about 100° F. temperature, was injected with the syringe, previously warmed with water of the same temperature, at four times, in the quantity of about six or seven ounces. The patient complained of no disagreeable sensation; some color returned to the cheeks, and uterine pains became active. On removal of the tampon, the os was found pretty well dilated, and the child was extracted with forceps, over two pounds of black grumous coagula coming away with the afterbirth.

After giving for refreshment a little champagne, a post-part. flooding ensued, which, though stopped by injections of diluted, first vinegar, and afterwards liq. ferri, sesquichloridi, caused such a degree of bloodlessness, that in view of the impossibility of hematosis by food or medicine, another transfusion of three ounces into the basilic vein of the right arm was made. Gradually the patient reacted, left her bed on the fourteenth day, and made a perfect recovery.

Dr. Martin adds to the report of this case the account of another in which he was called on to perform transfusion, after serous effusions into the pleural cavities had already taken place. He declined operating, however, and states his conviction that transfusion offers no hope after the secondary changes, in consequence of loss of blood, and especially serous effusions in the serous cavities of the chest and skull, have already occurred.

—PURE CAOUTCHOUC, dissolved in essential oil of turpentine and made into an electuary with syrup of elder and a few drops of essential oil of bitter almonds, is highly recommended by Prof. HANNOX in phthisis in doses of four teaspoonful of the electuary per diem, each teaspoonful containing about fifteen grains of the terebinthinated caoutchouc. Two spoonful are given in the forenoon, and two in the afternoon, with an interval of two hours between each. "The dose may be gradually increased, as the stomach can bear, and the patient gets accustomed to the taste and smell of the turpentine to a drachm, or even a drachm and a half, of the terebinthinated caoutchouc. This administration must be continued daily, till the symptoms of pulmonary phthisis disappear; and I do not abandon it even then entirely, but simply decrease the dose."

Caoutchouc administered in the solid state is inert; it is not digested; it traverses the intestinal canal without alteration; but after "disaggregation," by means of the turpentine, it is easily digested, and seems to favor hematosis considerably. Chemically, no *respiratory food* can be richer in carbon and hydrogen than pure caoutchouc, which consists of only these elements.

In phthisical patients, "under the influence of terebinthinated caoutchouc, expectoration diminishes rapidly; oppression ceases; night-sweats disappear; diarrhoea and fever stop; gradually strength reappears, and emaciation gives way to *embonpoint*. The cough is one of the first symptoms, too, which disappears.

"No other appropriate treatment need be excluded, while

giving the caoutchouc, but it is indispensable to give the latter through the whole continuance of treatment. That the cure of phthisis is not beyond the power of nature, very numerous examples prove; and that the terebinthinated caoutchouc, combined with other remedies, will assist in bringing about such a result, many observations lead me to believe."

Dr. HANNON refers to about a dozen cases.

Book Notices.

A PRACTICAL TREATISE ON MILITARY SURGERY. By FRANK HASTINGS HAMILTON, M. D., Author of a "Treatise on Fractures and Dislocations," Surgeon-in-Chief to the Long Island College Hospital, Surgeon to the Bellevue Hospital, New York; Professor of Military Surgery and of Diseases and Accidents incident to Bones, in the Bellevue Hospital. New York: 1861.

We have already noticed in our pages the preparation of this volume, by the distinguished author of "Fractures and Dislocations"—the most complete work of its kind in the language—and though the *Military Surgery* has been preceded by kindred works, we have lost nothing by the delay, since it has given us a volume worthy of its author.

Accurately speaking, however, neither this, nor Gross's, nor Tripler and Blackman's, is a *work on Military Surgery*, but they are all *Hand-Books for the Military Surgeon*; suggestive and practical, rather than exhaustive and disquisitionary, as their titles—with the exception of the last named—would lead one to believe. The volumes are what are needed in the emergency, but their titles are certainly misnomers. And yet Prof. HAMILTON has, we think, gone a step in advance of his co-laborers, and so far as might be, consistently with the urgency of the case and limited space and time, has produced a volume, valuable not only for its practical hints as to the conduct of camp and field hospitals, examination of recruits, mode of making requisitions and the numerous other technical details,—the *opus operatum* of the army surgeon,—but also for its sound rules and counsel in strictly surgical and medical practice. We can give no

clearer idea of the particulars in which we think this *Treatise* worthy, than by quoting the author's statement of the deficiencies it is intended to supply—merely premising that the intention is well fulfilled:—

General treatises upon surgery and surgical teachers, assume that both the patient and his medical attendant are placed always under the most favorable circumstances: that ample time is allowed for a careful diagnosis; and, in view of an operation, that the patient is brought up to the best possible condition of preparation: that he is at least comfortably lodged, suitably nourished, and that his surgeon has at his command all the instruments and appliances which can render the execution of the operation more easy, and its success more certain. No man who has had much experience in teaching, and in examining medical students, can have failed to notice the danger of suggesting inferior alternatives for exceptional cases, which, through inattention or carelessness, are often substituted in the minds of the pupil for the general law; and it is with much propriety, therefore, that these omissions are generally made.

It is the special province of military and naval surgery to supply these deficiencies; instructing the pupil how, by a multitude of extemporaneous expedients, he may succor the wounded and relieve the sick when the usual resources fail or are not at hand; how he may make the products of every country contribute to his necessities, and a single cruse of oil minister miraculously to a thousand.

The work embraces a consideration of the Examination of Recruits, the Hygiene of Troops, relating to Diet, Dress, Exercise, etc.; Accommodation of Troops in Tents, Barracks, Huts, etc.; the Construction and Location of Hospitals; Preparations for the Field; Flying Ambulances, Litters, etc.; also, Gunshot Wounds, Amputations, Hospital Gangrene, Scurvy, etc.; and an Appendix containing the United States Army Medical Regulations, with many other matters pertaining to Military Surgery.

The chapter on *Dysentery* is contributed by Prof. Austin Flint, M. D., and that on *Scurvy* by Prof. Benj. W. McCready,

M. D.; while the volume is replete with the experience and dicta of Drs. Satterlee, Wood, Coolidge, Tripler, Mills, Pitcher, Wright and others of the U. S. Army; and Drs. Parsons, Bache, Lockwood, Turner, Williams and others of the Navy. It is fully illustrated and well printed.

Bailliere Brothers, 440 Broadway, N. Y. W. B. Keen, 148 Lake Street, Chicago.

THIRD ANNUAL REPORT OF THE CHICAGO CHARITABLE EYE AND EAR INFIRMARY.

—Presented by the Board of Surgeons, for the year ending May 1, 1861. Chicago.

In presenting this Report, the Surgeons take occasion to state that they find many reasons for renewed encouragement in their labors. The number of patients applying for aid has steadily continued to increase. Benevolent individuals in this and the adjoining States have so far shown their confidence in the Institution, as to send poor patients to the Infirmary, at their own expense, for treatment. Physicians throughout the State have, in various ways, testified their interest in the success of the Infirmary; and all our intelligent citizens, to whom its beneficent objects have become known, generously tender their aid in its continued support.

The treatment has been very gratifyingly successful; and much suffering, destitution and distress has been alleviated through the instrumentality of the Infirmary.

Quite a large proportion of the patients at the Infirmary has been poor children, with whom diseases of the eye are too often, from fear of expense on the part of their parents, left without treatment, till vision has become permanently injured, and not unfrequently destroyed.

The Surgeons earnestly seek to impress upon the minds of the trustees and of the public, that the great object of Charitable Eye Infirmarys is the *prevention* of calamities—the most terrible that can befall a human being. By furnishing the poor with gratuitous treatment for diseases of the eye, they remove the fear of expense, and thus encourage such patients to apply for medical aid in the earliest stages of disease, when most easily relieved. In this way they prevent

not only blindness, but idleness and pauperism, with all their attending evils.

Prevention of these evils is more politic, vastly more economical, and more in accordance with an enlightened humanity, than efforts to alleviate their sad and deplorable effects, after they once exist. Even on the ground of economy alone, is it not a matter worthy the careful consideration of all tax-paying citizens, that more than four thousand poor patients are annually treated at the New York Eye Infirmary, at an expense of only about *one dollar each*, while a class of less than one hundred pupils is maintained in the Blind Asylum of this State at an expense of not much less than *two hundred dollars each*? And, too, a very large proportion of pupils in all blind asylums become blind from inflammatory diseases of the eye, many of which, it is stated on good authority, could have been relieved by proper treatment in their early stages.

Especial attention is called to the fact, that in this State, as also in the entire Northwest, there is a very large number of poor patients afflicted with diseases of the eye, who are almost entirely without suitable medical treatment, unless furnished by an institution like this.

The Surgeons, in concluding their report, of which the above is a very full abstract, would commend the Infirmary anew to its friends and the public, and earnestly ask such aid from the benevolent and affluent, as its increasing demands and extending usefulness require.

Dr. Edward L. Holmes, attending surgeon, who has made diseases of the eye and ear a speciality, is, we are glad to know, abundantly satisfied with the success of the Infirmary, modes of treatment, etc.; and deserves high praise for his energy and perseverance in its conduct. Two hundred and eighty-eight patients were treated during the year; of which 237 were for diseases of the eye, and 51 of the ear—making, in all, 580 cases treated since the establishment of the institution.

THE CLASSIFICATION, DIAGNOSIS AND PROGNOSIS OF TUMORS.—Briefly delineated for Practitioners by Dr. THEODORE BILLROTH, (now Professor of Surgery at the University of Zurich) From the Deutsche Klinik, 1859. Translated from the German by G. BAUMGARTEN, M. D. St. Louis, Mo. 1861.

The thanks of the profession are due Dr BAUMGARTEN, for his very faithful translation of this interesting monograph, a summary of which we may soon give in our pages. The leading idea of Prof. Billroth's paper is that all systems of classification of pseudo-plasms which rely solely on microscopical and chemical analysis are deceptive, because, while it is true, in normal histology, that *like structure occasions like function*, it is equally true of pathological tissues, that *tumors, whose tissues are identical, often have a very different clinical significance*; again, that classifications based on modes of development,—or on the manner in which the new tissues are inserted into the old are also fallacious; the division into tumors which do and do not recur after extirpation, impracticable and untenable; while the contemplation of every histologically defined form of tumor with regard to its connection with different organs and in the light of clinical experience, is cumbersome and complicated. A consideration and investigation of all these culminates in the dictum that in the classification of pseudo-plasms *the histological consideration must combine with the clinical, but the latter must be the leading principle*.

Prof. B. is by no means an ultraist in his views, although his contempt for young microscopists verges on the extremes of politeness sometimes. While anxious to advance, he fails not to keep in sight what has already been accomplished; and his efforts look to a union of what is worthy in the old, with the proved improvements of the new, *e. g.*:

The prognostic principle of classification, which hitherto was familiar to physicians—the faculty of recurrence in variable degree and extent—I regard as perfectly competent for practical purposes, and therefore retain it in the main. In the designation of the various forms of tumors I have likewise altered nothing and retained the usual names, but eliminated those names, which were chosen according to microscopical elements; they may be reserved to histologists for the more minute distinctions. The consistency and the similarity to

normal forms have occasioned the more current names, and it would be a vain endeavor to substitute other denominations for them; the majority have been chosen very pertinently by our forefathers.

In closing he adds:

The classification of tumors herewith concluded, has, like every essay of this kind, its great imperfections, I well know; but as the above synopsis corresponds to observation and to practical wants, as I hope, it thereby accomplishes that purpose, which every classification of diseases can only have, namely, to facilitate the mutual understanding of colleagues. Many will reject the principle of classification; I am aware myself, that much can be said against it; but that for practical medicine, without detriment to science, the practical points of view, *i. e.*, those derived directly from clinical experience, the observation at the bedside, must always be placed in the foreground,—is a principle the physician should never lose sight of. I believe, that it will favor the popularity of the four groups advanced by me, to give each group a general name. I have no new names to suggest, but only propose to apply the old names in the manner they are used in the following synoptical table, with reference to the above detailed remarks:

I. BENIGN TUMORS; *i. e.*, such as but seldom return after extirpation, but sometimes occur distributed in great numbers over the whole surface of the body.

1. The simple Cysts. (a) With serous fluid. (b) With mucous contents. (c) With pultaceous contents. (d) With blood. 2. The Fatty Tumors. 3. The Fibrous Tumors. (a) The soft fibrous tumors. (b) The hard fibrous tumors. 4. The pure Cartilaginous Tumors. 5. The Exostoses. (a) The spongy exostoses. (b) The ivory exostoses. 6. The Vascular Tumors. (a) The telangiectases. (b) The cavernous hæmatomata. 7. The Horny Excrescences.

II. SARCOMATA; Tumors which often return locally, but seldom invade the internal organs.

1. The Gland-like Tumors. 2. The Colloid Tumors. (a) The homogeneous colloid sarcomata. (b) The areolar colloid tumors. 3. The Cystoids and Cystosarcomata. 4. The firm Sarcomata. 5. The soft Sarcomata. 6. The soft Papillary Tumors.

III. CARCINOMATOUS TUMORS; *i. e.*, such as always return locally, then appear in the nearest lymphatic glands, and finally in internal organs.

1. The Carcinomata. 2. The Canceroids. 3. The Scirrhi.

IV. MEDULLARY AND MELANOTIC TUMORS; *i. e.*, such as usually soon return locally, and rapidly extend upon internal organs.

1. The Medullary Fungi. 2. The Melanotic Tumors.

THE MODUS OPERANDI OF VARIOUS KINDS OF BATHS, SEA-BATHING, HEAT AND COLD, PHYSIOLOGICALLY EXPLAINED.—By JOHN O'REILLY, M. D., Licentiate and Fellow of the Royal College of Surgeons in Ireland; Resident Fellow of the New York Academy of Medicine; Member of the Medico-Chirurgical College of New York; late Medical Officer to the Oldcastle Workhouse and Fever Hospital, Ireland. New York: Hall, Clayton & Co., Printers, 46 Pine Street. 1861.

In the course of a dozen or so pages Dr. O'REILLY manages to discuss the *modus operandi* and good effects of the warm bath, its use in preventing fever and inflammation, and as a remedy in strangulated hernia, the bad effects of ice, remarks on hernia, fainting caused by the warm bath, mode of resuscitation, Marshall Hall's method of treating asphyxiated infants, the mode in which infants born apparently dead are restored to life, efficacy of cold douche in post-partum hæmorrhage, mode of action of ergot of rye in arresting hæmorrhage, how sprinkling an infant with cold water resuscitates it, how cold air or ice arrests hæmorrhage after an operation when oozing of blood continues, wounds dressed immediately after an operation, good effects of cold douche in fever and encephalitis, how a drink of cold water causes death, state of a wound after exposure for three hours, Mr. Liston's remarks, Mr. Macartney's theory, Sir Astley Cooper's ideas, Mr. Hunter's views, cold water dressing, the mode of treatment of wounds after operations, effects of the cold bath, the cause of spasms by cold, by tetanus, by strychnine, by lead, by Asiatic cholera, treatment of spasms produced by cold water, *modus operandi* of salt-water bathing, phosphorus, chloride of sodium, good effects of cold baths, shower baths, cause of suspended animation, *modus operandi* of sulphur baths, iodine baths, nitro-muriatic acid baths, and of iodine in Bright's disease.

He also adds five notes on as many more subjects; so that it will be seen this pamphlet of pp. 23, is an exceedingly comprehensive affair.

LECTURES ON THE DIAGNOSIS OF THE PRINCIPAL FORMS OF PARALYSIS OF THE LOWER EXTREMITIES.—By E. BROWN-SÉQUARD, M. D., F. R. S., Fellow of the Royal College of Physicians of London; Hon. Fellow of the Faculty of Physicians and Surgeons, Glasgow; Laureate of the Institute of France, (Academy of Sciences,) Etc., Etc. Philadelphia: J. B. Lippincott & Co. 1861.

COURSE OF LECTURES ON THE PHYSIOLOGY AND PATHOLOGY OF THE CENTRAL NERVOUS SYSTEM—Delivered at the Royal College of Surgeons of England in May, 1858. By C. E. BROWN-SÉQUARD, M. D., F. R. S., Fellow of the Royal College of Physicians of London; Hon. Fellow of the Faculty of Physicians and Surgeons, Glasgow; Laureate of the Institute of France, (Academy of Sciences); Physician to the National Hospital for the Paralyzed and the Epileptic; Ex-Professor of the Institute of Medicine at the Medical College of Virginia, U. S.; Fellow of the Royal Medico-Chirurgical Society of London; Ex-Secretary and Vice-President of the Société de Biologie of Paris. Philadelphia: Collins, Printer, 705 Jayne Street. 1860.

A TREATISE ON THE PRACTICE OF MEDICINE.—By EDWIN R. MAXSON, M. D., formerly Lecturer on the Institutes and Practice of Medicine in the Geneva Medical College. Philadelphia: Lindsay & Blackiston. 1861.

We acknowledge the receipt of the above volumes, the first two through S. C. Griggs & Co., 39 and 41 Lake Street, Chicago, and promise suitable reviews in a future number of the EXAMINER.

THE LONDON LANCET for June, from whose richly-stored pages we re-published, in our June number, the valuable *Directions to Army Surgeons on the Field of Battle*, contains the Index for the half-yearly volume, which it completes. COOTE takes up the usually neglected subject of *Curvatures of the Spine*, in his Clinical Lectures, as also *Knock-Knee (genu valgum)*; *Bow-Leg (genu extorsum)*; etc., and the number is, as usual, replete with original papers, hospital reports, clinical records, correspondence, etc. A complete alphabetical Index for the ten years between 1851 and 1860, will be published on the 15th inst.

THE TRUE PHYSICIAN.—Dr. JOHN WATSON'S Anniversary Discourse. 1860.

Delivered before the New York Academy of Medicine, November 7, 1860, and published by its order. Distinguished for its elegance and scholarly polish, it is yet no mere holiday array of fine-sounding words; but an earnest, prac-

tical appeal, high toned and liberal, for the dignity and elevation of our professional standard. It is sufficient praise to write, that it is worthy of its eminent author—the President of the New York Academy of Medicine.

TRANSACTIONS OF THE NEW JERSEY MEDICAL SOCIETY—For 1860, held at the City of Trenton, January, 21th and 26th, 1860; being the Ninety-Fourth Annual Meeting of the Society.

We are indebted to Recording Secretary, Wm. Pierson, Jr., M. D., for a copy of the Transactions of this sterling society, one of the oldest in the country. Its contents are valuable, and the report of the Standing Committee quite interesting.

Editorial.

THE INFLUENCE OF ALCOHOLIC DRINKS ON THE DEVELOPMENT AND PROGRESS OF PULMONARY TUBERCULOSIS.—At the last annual meeting of the American Medical Association the senior editor of this journal presented to the section on Practical Medicine a paper on the subject, presented in the above caption. The paper was subsequently published in the Transactions of the Association, and a synopsis of it may be found in the February number of the EXAMINER.

The appearance of the paper in the Transactions has elicited brief comments in several Medical journals, some of which are rather curious specimens of criticism.

For instance, the *Cleveland Medical Gazette*, after quoting the conclusions appended to the paper, simply adds: “Dr. DAVIS is an *ultraist* on this question, and we are satisfied the *present* experience and opinions of the mass of the profession do not coincide with those presented by him.”

The *American Medical Monthly* commences its reference to the paper as follows: “We do not know that it would be possible to make Dr. DAVIS look with complacency upon any use of alcoholic drinks. From his papers, including with

this some upon kindred topics, *we judge that he is an uncompromising teetotaler*; a man very good in his way, but not on that account the most fit person to judge of the effects of alcoholic drinks."

These comments suggest several questions which we would like to have answered. And first, what constitutes "an ultraist" and "*an uncompromising teetotaler*"? Is it one who simply avoids all use of alcoholic drinks *as beverages*? If so, we cheerfully plead guilty to the charge.

If anything more than this is meant, then we deny the charge, and demand of its authors their proof. But if refusing to use alcoholic drinks, as beverages, makes a man "an ultraist," we suppose a refusal to keep the mouth full of tobacco would make a man "an ultraist" on that subject. And by the same process of reasoning, a refusal to make *opium* an article of diet would constitute "an ultraist" on that subject.

Again, if a man does not, himself, use any particular article of diet or drink, and is therefore, according to the logic of our respected cotemporaries, "an ultraist," does such ultraism incapacitate him for judging correctly of the effects of such articles upon others? If it does, will our Cleveland and New York cotemporaries inform us *just* how many drinks per week or per day, will be sufficient to remove the charge of *ultraism*, and render us capable of judging correctly concerning the effects of alcohol on others? From what we had seen in our ordinary intercourse with men, we had not supposed that the use of alcoholic drinks either improved the intellectual faculties, or rendered the judgment more reliable. Neither had we discovered that an *appetite* for those drinks rendered the mental operations any more impartial or correct.

Finally, what has our individual opinions in reference to the propriety or impropriety of the use of alcoholic drinks, as beverages, to do with a simple record of facts in relation to a given number of cases of tuberculosis?

The reviewer in the New York journal, goes so far as to bring up the "Maine Law," and to give us the benefit of his opinion on that statute. Now, we ask again, what has our

“uncompromising teetotalism,” or even the “Maine Law” to do with the record of cases of tuberculosis, given in the paper we had the honor to present to the American Medical Association?

Our New York critic complains that the reasoning in our paper was not *logical*. Perhaps the following *sylllogism* would be regarded by him as *logically* correct, viz :

Dr. Davis has reported 210 cases of pulmonary tuberculosis and their relation to the use of alcoholic drinks.—

Dr. Davis is an “*uncompromising teetotaller*”.—

Therefore, the cases of tuberculosis reported by Dr. Davis are of no value.

In the introduction to our paper, we stated as a reason for recording cases, that the idea had been extensively promulgated that alcoholic beverages, including wine and beer, were capable of preventing or retarding pulmonary tuberculosis. In regard to this, the writer in the *American Medical Monthly* says : “We do not remember to have seen or heard the *idea announced*, which was the cause of the statistical record of our author.” Did that writer ever see or hear of a valuable work known as “Wood’s Therapeutics and Pharmæcology”?

If he will turn to Vol. 1, page 666, of that work he will find the *idea* very plainly announced in the following paragraph : “Nature, while planting in so large a proportion of the human family a disposition to scrofulous or tuberculous complaints, seems to have provided, in the *fermented liquors*, what, if properly used, may be considered in some degree a *counteracting agent*.”

But Dr. Wood does not restrict the prophylactic influence to “fermented liquors” alone ; for on the next page he says, “Physicians have often noticed that drunkards seldom die of phthisis.”—And again : “Out of 117 cases of confirmed drunkards, whose bodies were examined after death by Dr. Oysten, there were only two who exhibited any evidence of tuberculous disease of the lungs.”

We doubt whether a respectable work, on either materia medica or practical medicine, has been published in this country during the last eight years, that does not clearly

announce the idea, that alcoholic drinks are more or less prophylactic against phthisis. And if our New York critic has never seen or heard of that idea, we fear he has given himself more trouble about the *Maine Law*, than about the ordinary text-books of the profession.

Again he says: "Now, does phthisis pulmonalis prevail among them (those who drink wine, beer, or stronger spirits) more than among teetotallers? Do those who are of tuberculous families develop this disease more certainly or more rapidly if they use these beverages, than if they totally abstain?" And then he complains that our conclusions are not "logical answers" to these questions. Certainly they are not; and for the very good reason, that they are not the questions we had under consideration. We did not entertain or discuss the question whether alcoholic beverages were *causes* of phthisis! But exactly the reverse, namely, whether they were *preventives* or prophylactics.

Having carefully recorded 210 cases, and finding that of the whole number, 68 had habitually used these beverages, from one to twelve years before the active symptoms of phthisis were noticed; 91 had used them occasionally; and 51 not at all; and on further examination, finding that among the 68 habitual users of these beverages were men of all classes, from the day laborer to the judge of the higher courts, and of all degrees of freedom in such use, from a single cup of beer at meal time, to such excess as ended in delirium tremens, we very naturally, if not *logically*, drew the inference, "That neither the action of alcohol on the functions of the human system, nor the actual results of experience, furnish any evidence that these stimulants are capable of either retarding or preventing the development of tuberculosis."

If one man drinks a mug of ale at each meal for five years, and at the end of that time is found to have genuine tubercular phthisis—if another drinks wine in a similar manner and with a similar development—and if a third drinks a glass of whisky from one to three times a day for a similar series of years, and yet finds himself laboring under the same disease, what is the legitimate conclusion? Why, simply that these

drinks did not prevent the development of the disease. Is there any want of logic in that? If on extending the inquiry we find 50 or 100 similar cases—or quite as many of that character as of those who do not drink any of those beverages, then we may legitimately and logically vary the conclusion, and say that these drinks have *no power* to prevent the development of phthisis. But the reviewer in the *Cleveland Medical Gazette* says: “We are satisfied the *present* experience and opinions of the mass of the profession do not coincide with those presented by him.” We do not doubt the correctness of this statement. And it is precisely for that reason that we called the attention of the profession to the cases and inferences contained in our paper. If we had supposed that the conclusions at which we arrived, in reference to the prophylactic powers of alcoholic drinks, were already the generally received opinions of the great mass of the profession, we should have deemed it an unjustifiable waste of time, to have occupied the attention of the Association with the subject. But how long is it since it was in accordance with “the *experience* and opinions of the great mass of the profession” to keep consumptive patients carefully excluded from the open air, and confined in warm rooms with anti-phlogistic medicines? How long is it since it coincided with the “experience and opinions” of the profession, to treat almost all the fevers and phlegmasiæ with venesection and anti-phlogistics? Can any one say that “the *present* experience and opinions of the mass of the profession” are any more infallible than the *past*? We wish our cotemporaries would give us fewer mere *opinions*, and more carefully recorded facts.

WESTERN ARMY MEDICAL MATTERS.—In accordance with a general order from the Secretary of War, Gov. Yates has appointed the following gentlemen an Examining Board for applicants for Surgeoncies and Assistant Surgeoncies to the volunteer forces, mustered into the service of the United States from this State: Prof. H. A. JOHNSON, M. D., Chicago, President; Drs. Bryan, (Sycamore,) Davis, (Paris,) Roskoten, (Peo-

ria,) and Wing, (Collinsville.) These gentlemen have been in session at Springfield some three weeks, and will probably remain in session until about the 15th inst. On the 8th, we learn they adjourned to Cairo, for examinations at that place, for one week. A letter from the President, to the junior editor, under date of July 2, says: "We have examined twenty-one applicants and passed *seven* to the grade of Surgeon, and, as you will understand, the results of our labor have been to disturb the relations of some who have been heretofore attached to regiments." So far as we learn, the action of the former Board, which was purely a State affair, has been very fully endorsed by the present one, and the allusion in the last sentence of Dr. Johnson's letter, we take to be to a number of independent gentlemen who refused to come before the former Board for examination, but relied for their appointments upon political influence and favoritism.

The rules to be observed in appearing before the present Board, are similar to those of the regular army Boards. Applications must be made to the Governor for permission to appear for examination, which application must be accompanied by respectable testimonials of professional, moral and physical qualifications. Permission being given, the applicant presents his order for examination to the Board, by which it is registered, and in due order, he is summoned for examination; surgeons already attached to regiments having priority over those unattached. The appointments to service are made by the Governor, usually on recommendations of the colonels.

—OWING to the changes, and consequent confusion arising from the above action, we are unable to present, as we had hoped to, anything of particular interest of camp and field practice, from special correspondents, but give what we deem worthy of note from other sources.

Notwithstanding a considerable amount of sickness during the wet season, which prevailed during the early part of the campaign at Cairo, the general health at that point is good. In some positions of unusual exposure there are reported a number of cases of typhoid fever, and one death on the 30th

ult. The *Cairo Camp Register* of June 15th, reports 772 cases of sickness, treated at the hospital there, from the 27th day of April, and up to that time, we believe, *no deaths* had occurred, in the hospital, certainly a remarkably favorable exhibit for a locality so much dreaded.

—SUB-COMMITTEE B. of the Sanitary Commission, elsewhere noticed, consisting of the Rev. Dr. Bellows of New York, and Drs. I. S. Newberry of Cleveland, and W. H. Murray of Cincinnati, have made a satisfactory official inspection of the company quarters and regimental hospitals at Camp Defiance, and Dr. Wright, of Cincinnati, Surgeon-in-chief of the Department of the West, (1) accompanied Major-General McClellan on his late visit to the same post—Dr. W. inspecting the hospitals. Eight or ten women-nurses are on duty in the Cairo hospitals, under charge of Mrs. Yates of this city, acting under authority from Miss Dix, and, as we learn, with the happiest results.

—IN THE REGIMENTS stationed at Chicago, there has been an epidemic of measles, and one or two cases of typhoid fever have occurred. There have also been a few surgical cases, one of a gun-shot wound in the face with buck-shot and shingle nails, causing very severe laceration; another of a bayonet-stab in the chest; a private in the Irish Brigade broke his leg by falling from an upper window of the barracks—was removed to the Mercy Hospital; several cases of hernia and contusions also occurred among the German Dragoons—but in all the foregoing cases, recoveries have been made, or are satisfactorily progressing.

ARMY SANITARY COMMISSION.—The President, at the request of the Medical Bureau of the U. S. Army, has appointed Rev. HENRY W. BELLOW, D. D., President; Prof. A. D. BACHE, Vice-President; ELISHA HARRIS, M. D., Corresponding Secretary; GEO. W. CULLUM, U. S. A., ALEX. E. SHIRAS, U. S. A., ROBERT C. WOOD, M. D., U. S. A., WM. H. VAN BUREN, M. D., WOLCOTT GIBBS, M. D., SAMUEL G. HOWE, M. D., CORNELIUS R. AGNEW, M. D., and J. S. NEWBERRY, M. D., and GEO. T. STRONG, Treasurer, a *Commission of In*

quiry and Advice in Respect of the Sanitary Interests of the United States Forces. This *Commission* and its plan of organization meets the approval of the War Department, and all persons in the employ of the U. S. Government are directed and enjoined to respect and further its objects to the utmost of their ability. The Surgeon-General also issues an order in its behalf. The Plan of Organization, as published, proposes, in brief, to do to the fullest extent what is implied in the title we have given, viz: first, to *inquire* into the theoretical, actual and desirable conditions of the troops; and second, to *advise* with the Government, Medical Bureau and War Department as to what steps are necessary to insure the highest sanitary condition of the army in every point of view; to see to the carrying out the orders, emanating from their counsels, and to advise with State Governments and benevolent associations, to the end of securing harmony of plans and actions, and abundant supplies of money and goods.

If the *Commission* does not fail to accomplish anything, by attempting to do too much, nor fritters away in petty details, time, which should be spent in laying broad, comprehensive plans, with the execution of which the Medical Bureau and the War Department would be naturally charged,—if it avoids these errors, then we cannot but hail this as one of the most notable epochs in the medical history of our times,—since it not only secures the benefits of the most scientific treatment and counsel to the largest and most valuable volunteer army the world ever saw, but it establishes a precedent, in the recognition by government of the value and importance of the Medical Profession, from which good cannot fail to accrue.

PERSONAL.—PROF. FRANK H. HAMILTON, the eminent New York surgeon and author, has been appointed to the 31st Regiment, N. Y. V. M....DR. LUTHER V. BELL, formerly in charge of the McLean Insane Asylum, Mass., has been appointed to the 11th Mass. Regiment....DR. ELISHA HARRIS has withdrawn from the editorial staff of the *American Medical Times*, in order to devote himself more thoroughly to the

duties of the Corresponding Secretaryship of the Army Sanitary Commission....HENRY GRAY, the eminent anatomist, and author of the popular text-book, died recently in London of confluent small-pox, æt. 36....CLEMENT A. FINLEY, M. D., the present Surgeon-General, is a native of Ohio, and has been in the service forty-three years. DR. SATTERLEE, also of Ohio, we believe, is the next oldest Surgeon on the list.

VOLUNTEER WOMEN NURSES.—Miss DOROTHEA L. DIX has been appointed Superintendent of the women nurses, who are hereafter to be supplied to the hospitals, during the war, in obedience to the demands of public sentiment and the humane instincts of the age. Associations are at work in some of the Eastern cities, selecting and training applicants for such service; and some of the Military Hospitals in this State, as elsewhere, have been already supplied. Mrs. YATES, of this city, is the Matron-in-Charge for this State, with her head-quarters at Cairo.

THE SURGEON-GENERAL authorizes the several medical directors of the army, when they have reason to doubt the professional competency of any of the medical officers under their charge, to organize a board of not less than three medical officers, which shall examine said officers of questioned professional capacity, and decide whether they are competent to the performance of their duties. If the decision of the board is adverse, they will cease to be in the military service of the United States.

WE REGRET to learn that the issue of Dr. GIBBS' proposed *Year Book of American Contributions to Medical Science and Literature*, is postponed on account of the paucity of subscribers, troublesome times and the pecuniary embarrassments of the masses. The Dr., however, convinced of its utility, announces his readiness to undertake it at any time when there shall appear a hope of its paying expenses; and, meanwhile, proposes preparing a *Summary* of medical journal literature which will enrich the pages of that enterprising publication, the *Phila. Med. and Surg. Reporter*.

TOUGH LUNAR CAUSTIC POINTS are prepared by the English druggists, by the addition of two per cent. of some adhesive material, which, while not interfering either with the efficacy of the caustic, nor its solubility, renders the nitrate perfectly tough, and as readily cut and pointed as an ordinary slate pencil. They are cast in small conical points, an inch long, and of the diameter of an ordinary lead pencil.

A MEDICAL SHARPSHOOTER.—The *Lancet* says that Dr. Burke Ryan, the surgeon to a rifle regiment, has greatly distinguished himself in rifle shooting, and has been awarded some prizes. The habitual steadiness of practicing surgeons, with their accustomed consentaneous action of eye and hand, should make them good marksmen.

The *Reporter* remarks, that military surgeons, although technically non-combatants, are sometimes obliged to act on the defensive, and a little practice with weapons would be advantageous to them.

ABSENCE OF THE UTERUS.—Dr. R. N. NELSON (*Am. Med. Monthly*), reports three cases of absence of the womb in one family of five sisters, in his own practice. They are described as women of more than ordinary personal attractions—indeed the Dr. enters into the details of their appearance *con amore*. All three have been, or are married, the two elder ones twice, and live quite happily in their marital relations. Of the remaining two, one is married and a mother, and the youngest of the five, who is still unmarried, menstruates regularly, and, to use the words of the writer, “is without defect.” The three, without uteri, differ otherwise only from the others in being sparer in flesh, with thin lips and small mammae, while the latter incline to *embonpoint*. The cases are interesting, as all occurring in one family.

“ONWARD!”—One of the little pellet-men down in Missouri, knowing our fondness for the humbug, has sent us his valedictory address, recently delivered, and closing with a plaintive appeal to the graduating class to “shout *onward!*” throughout the troublesome paths of a weary world.” He, himself, shouts “onward!” after this fashion: “But, mark me, gentlemen, if any of you, at any time in your professional career, mistake a dislocation of the inferior maxillary bone for a dynamic disease of the organs, and prescribe your pills, or your powders, your tinctures, triturations, or dilutions, to effect its reduction, your Alma Mater forthwith disowns you, and you deserve no better fate than that

your own jaws be dislocated and held so forever, by permanent ankylosis." What a terrible fate is in store for some of them; the homœopathic "*Alma Mater*" will be orphaned. But then the charitable old creature will still allow them, at least hereaways, to diagnose measles as small-pox, and send their poor, unfortunate patients to the pest-house with well-marked cases of *rubeola*.

CO-EXISTENCE OF DISEASES.—DR. JOHN SWINBURNE, in a letter from the Albany Military Hospital, to which he is attached, to the *Philadelphia Med. and Surg. Reporter*, remarks: "We have received several [patients] with two diseases, as gonorrhœa and *rubeola*, vaccina and *rubeola*." Whereupon the *Reporter* interlines the query, "Both in distinct progress at the same time?" And to which we answer, Yankee-fashion, by asking, Why not? Is there anything prophylactic of measles in gonorrhœa, or of vaccina in measles, or *vice versa*, and if not, why should they not be "in distinct progress at the same time?" Dr. Bulkley wrote, in 1851, "the co-existence of two febrile exanthemata in the same individual has now been observed in so many instances, and so many cases of it are now on record, that its occurrence may be considered as beyond doubt." And in the appendix (C) to his edition of *Gregory on Eruptive Fevers*, he cites numerous cases in proof, recorded by such men as Drs. John Watson, Tracy, Withering, and Messrs. Gilder, Little, Barnes, Marson, Barthez and Rilliet and Levy; and in closing, remarks, "we could add still further proof that the febrile exanthemata do exist together in the same individual, and run their course simultaneously, but feel that the point is too well established to call for any more extended notice of the subject."

CONSERVATIVE SURGERY.—A correspondent of the *Dublin Medical Press* cites the following instance of the *vis medicatrix nature* as unique, as, if true, it undoubtedly is. The union of the smaller bones, such as the phalanges of the fingers and toes, is by no means uncommon, as witness the case reported in the present number of the EXAMINER, and the experience of any surgeon of a dozen years' practice; but the re-union of such large bones as the ulna and radius, when the soft tissues, nerves, vessels, etc., have been divided, and nutrition, apparently, entirely cut off, is certainly remarkable:

In the Life and Opinions of General Sir Charles James Napier, G.C.B., by Lieutenant-General Sir W. Napier, K.C.B.,

vol. iv, Sir Charles says: Hunter, (General,) who is here, told me a curious thing. Showing me a large sword, which cut off his arm at Burthpooor when leading the assault, he said, that on the rampart a giant, in complete armor, whirling this sword, met him. Hunter held his sword up in defence, but to use his own words, the giant sent it with a *whirr* into the air. Hunter then held up the scabbard, but the blow went through it and his arm, just below the elbow, leaving merely *a bit of skin uncut*. He fell sitting, and held his severed arm in his right hand, while an officer tied a sash above the wound to stop the hemorrhage: then a surgeon came up, put the *two ends together* and tied them, *and they united*.

CHLORATE OF POTASH IN VARIOLA.—Dr. J. T. REED communicates to the *American Medical Times*, his experience in the use of chlorate of potash in small-pox, with which he treated eighteen out of twenty-two cases, five being of the confluent type, during the months of March and April, last. The advantages claimed are an entire absence of the dyspnœa during the suppurative stage, so constant and troublesome a symptom in variola, “and which was so common with the others, treated with acet. ammon., Rochelle salts, and a Dover’s powder, to induce sleep and rest.” He says there were some as well-developed cases of the confluent type among those treated with the chlorate, as in those that occurred before he relied exclusively on the salt. “They appeared equally severe, perhaps severer, than any of the former ones. Yet in no instance did they suffer or complain of symptoms of suffocation. What to attribute it to, other than the remedy,—chlorate of potash, freely used,—I know not.”

During the last epidemic of small-pox in this city, in the winter of 1857, we were accustomed to exhibit the chlorate in all cases that assumed a typhoid condition, and with markedly beneficial results. But the object sought after then, was a more thorough oxygenation of the blood, and, indirectly, a stimulus to the nervous system, through this natural agency. For the same reason, we consider it applicable in all the eruptive fevers, where there is any evidence of an imperfect arterialization of the blood,—as shown by lividity of the lips and complexion, coldness of the extremities, and sense of oppression in the præcordial region. We seldom treat a case of scarlet fever, now, without using this remedy; and we have been led to infer from its uniformly good effects, that it may possess some specific action in counteracting the blood-poison, or whatever morbid agent it is, which determines the character of the eruptive

fevers,—either by the more thorough oxygenization of the blood, or in some unknown mode.

REGENERATION OF NERVE-FIBRE.—Prof. DALTON's experiments on the reproduction of excised nerves, acquires considerable importance in view of the radical cure for neuralgia so favorably spoken of at the present time. In one of his experiments, a half-inch of the facial nerve of a cat was re-produced in three and a-half months. Bidder, in Germany, and Valentine, in Switzerland, assert that a nerve may be regenerated if extirpated to the extent of three-fourths of, or even an entire inch. In Prof. D.'s lectures on the physiology of the cranial nerves, recently published in the *Am. Med. Times*, he, also, cites experiments, proving, not only that corresponding nerve fibres may be made to unite with each other, *e. g.*, the filaments of the upper branch of the brachial plexus in a cock, with those of the lower branch, and *vice versa*, as M. Flourens had caused, but that filaments of a purely sensitive nerve could be made to unite with those of a purely motor nerve, anatomically, at least, if not physiologically. The experiments proving this last, were made by Messrs. Gluge and Thiernesse, and are interesting enough to warrant us in appending them: They operated upon two of the cranial nerves, one almost exclusively sensitive, the other almost exclusively motor, viz: the lingual branch of the fifth pair, and the hypoglossal. A wound was made in the side of the neck, and the lingual and hypoglossal nerves were exposed and divided. Then the extremity of the lower part of the hypoglossal was simply united with the extremity of the upper part of the lingual, and the wound was closed. But upon examining the animal afterward, it was found that in this case all four extremities of the divided nerves had united together into a single cicatrix; so it was impossible to tell which nerve had united with which. In order to avoid this difficulty, the plan was afterward adopted of uniting together, as I have already said, the lower part of the hypoglossal and the upper part of the lingual, and then dissecting out the remaining portions of each nerve, for the full extent of the wound. The two nerves, the lingual and hypoglossal, were thus allowed to remain in contact with each other; and at the end of a certain time it was found that they had united with each other by a firm ribbon-like cord, which contained in many instances nervous filaments completely distinguishable by the microscope. Notwithstanding this union, however, a galvano-electric discharge, passed through the lingual nerve, did not produce any contraction in the muscles of the tongue below, demonstrating the fact that

although sensitive and motor filaments might become united anatomically with each other, there was, nevertheless, no physiological relation between them, and no nervous stimulus could be communicated from one to the other. Now, in doing these experiments, various other points were established at the same time. For example, it was found, after exposing the hypoglossal nerve, that on grasping it with the forceps, certain signs of pain were produced. Now, we know that this is exclusively a motor nerve at its origin, but there are certain sensitive filaments which afterward enter into its composition, and which are due to inosculation with other cranial nerves. In the same manner the facial nerve, which is itself exclusively motor, receives sensitive filaments from certain branches of the fifth pair. The converse is true with regard to the lingual branch of the fifth pair; for although sensitive at its origin, it is joined in its course by a fine bundle of motor filaments, constituting the *chorda tympani*. Thus both these nerves, although exclusively motor or exclusively sensitive at their origins, become mixed nerves before they reach their final distribution.

CANNABIS INDICA.—Dr. J. R. Reynolds, of London, gives a very valuable paper on “Some of the Therapeutical Uses of Indian Hemp,” in the *Archives of Medicine*, in which he asserts that the uncertainty of its action is due to the disregard of one of the following conditions: the choice of a proper case, of a pure article, and the exhibition of a proper dose. Its qualities are soporific, anodyne, and anti-spasmodic; it relieves pain, and spasm, and conduces to sleep; in doing either of these it usually promotes diaphoresis and diuresis; whereas it does not leave behind it headache or vertigo; nor does it affect the appetite nor confine the bowels.

Its beneficial effects are illustrated, 1. In cases of mental or emotional disturbance. 2. For the relief of certain kinds of pain. 3. In certain forms of convulsions. On the other hand, it was absolutely useless in most cases of epilepsy, hypochondria, and the various hysterical affections. To give a bird's eye view of the whole subject, the remedy was, for the relief of

EMOTIONAL DISTURBANCES.

Successful in—1. Deranged cerebral circulation, with pain and delirium. 2. Incipient insanity after yellow fever. 3. Senile ramollissement.

Unsuccessful in—1. Hypochondriasis. 2. Temporary, recurrent religious melancholy. 3. Insomnia with diabetes.

PAINFUL AFFECTIONS.

Successful in—1. Nervous irritation from carious teeth. 2. Probable tumor of brain. 3. Probable thickening of spinal meninges. 4. Hemorrhage at roots of 8th and 9th nerves. 5. Syphilitic meningitis. 6. Hemierania.

Unsuccessful in—1. Sciatica. 2. Hysterical hip-joint. 3. Hysterical headache.

AFFECTIONS OF MOTILITY.

Successful in—1. Meningitis. 2. Intense cerebral congestion. 3. Obstinate nervous vomiting. 4. Recurrent convulsions.

Unsuccessful in—1. Epilepsy.

It does not, like opium, purchase present relief at the expense of future misery. The value of the medicine seems enhanced, because the limitation of its action will enable us to apply it with scientific selection.

A Holland physician, FROMMÜLLER, has also lately produced a treatise on the Indian Hemp, which article he has made an especial study during the past ten years; and his treatise is based upon the clinical observation of no less than a thousand cases of its use. We have space only for a summary of the conclusions at which Dr. FROMMÜLLER arrives, which we copy from the *Amer. Jour. of the Med. Sciences*, which in turn reprints from the *B. and F. Med. Chir. Rev.* 1861, from *Vierteljahrsschrift für die practische Heilkunde*, 1860. As the result of his observations FROMMÜLLER asserts: 1. That Indian hemp, among all the known medicines which cause stupefaction, is that which produces a narcotism most completely supplying the want of natural sleep, without occasioning any great excitement of the vascular system, without special stoppage of the secretions, without the supervention of unfavorable consequences, and without subsequent paralysis. 2. That Indian hemp, on the other hand, is not so strong nor so certain in its operation as opium. 3. That Indian hemp may be given in all acute inflammatory diseases and in typhus fever. 4. That it is worth a trial to alternate the Indian hemp with opium, in cases where the latter fails. 5. That the best mode of administration is the alcoholic extract, in small pills which contain an addition of the powder of Indian hemp. The lowest dose for producing sleep may be estimated as eight grains given in pills of one grain each.

The Editor of the *Journal* adds a caution about the use of such large doses, where the extract is of the best quality: and we opine it will be found safer to adhere to the customary mode of administration, commencing with small doses and gradually increasing.

Special Notices.

SUMMER TERM AT THE LIND.—*One recitation and one familiar explanatory lecture daily until the first Monday in October, on the following branches: Materia Medica and Practical Medicine, Prof. J. H. Hollister; Anatomy and Surgery, Prof. R. N. Isham; Chemistry, Prof. F. Mahla; Obstetrics and Diseases of Women, Prof. H. A. Johnson; Clinical Surgery, Prof. E. Andrews; Clinical Medicine, Prof. N. S. Davis.*

Cliniques at Mercy Hospital, from 9 to 10 A. M., in the Medical Wards, service of Prof. DAVIS, on Tuesdays and Fridays; in the Surgical Wards, service of Prof. ANDREWS, on Mondays and Thursdays. At Marine Hospital, from 9 to 10 A. M., service of Prof. ISHAM, on Wednesdays and Saturdays.

At Chicago Dispensary, from 2 to 3 P. M., Surgical Cliniques, service of Prof. ANDREWS, on Wednesdays; Diseases of Women and Children, service of Prof. BYFORD, on Saturdays.

Lectures on Military Surgery, by Prof. ANDREWS, in the Amphitheatre of the College, on Wednesday and Saturday afternoons, from 5 to 6.

THE DISPENSARY of the Chicago Charitable Eye and Ear Infirmary, in Ewing's Block, corner of North Clark and North Water Streets, is open daily, from 11½ to 1 o'clock, for the gratuitous treatment of the poor, afflicted with diseases of the Eye or Ear. Drs. E. L. HOLMES and E. POWELL, attending Surgeons; Profs. D. BRAINARD, M. D., and J. W. FREER, M. D., Consulting Surgeons.

THE CHICAGO DISPENSARY, in Lind's Block, on Market St., near Lake, is open every afternoon from 2 to 3 o'clock, for the gratuitous treatment of the indigent sick. Profs. W. H. BYFORD, M. D., and E. ANDREWS, M. D., Physicians and Surgeons in charge.

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THE Chicago Medical Examiner.

N. S. DAVIS, M. D., Editor,---FRANK W. REILLY, M. D., Ass't Editor.

A MONTHLY JOURNAL,
DEVOTED TO THE
EDUCATIONAL, SCIENTIFIC, AND PRACTICAL INTERESTS
OF THE
MEDICAL PROFESSION.

The EXAMINER will be issued during the first week of each month, commencing with January, 1860. Each number will contain 64 pages of reading matter, the greater part of which will be filled with such contents as will directly aid the practitioner in the daily practical duties of his profession.

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THE CHICAGO MEDICAL EXAMINER

N. S. DAVIS, M. D., Editor.---FRANK W. REILLY, M. D., Ass't Editor.

VOL. II.]

AUGUST, 1861.

[NO. 8.

Original Contributions.

ARTICLE I.

LECTURES ON MILITARY SURGERY:

DELIVERED DURING THE SUMMER COURSE OF THE MEDICAL
DEPARTMENT OF LIND UNIVERSITY.

By E. ANDREWS, A. M., M. D.,

PROF. OF SURGERY; SURGEON TO THE MERCY HOSPITAL; TO THE CHICAGO MED. DISPENSARY, ETC.

LECTURE FOURTH.

THE SURGEON ON THE FIELD OF BATTLE.

The previous lectures have, of necessity, been confined to the organization and machinery of the Medical Department of the army; but now we come to the more interesting topics of the uses of that organization, and the duties of the surgeon in operating that machinery.

Battles occur under all conceivable forms and circumstances, obliging the surgeons to vary their arrangements for the wounded according to the shifting scenes of the day. As a general rule, however, the following arrangements may be calculated upon in a field fight. The troops are arranged on a line from right to left, with space in the rear for free lateral communication to any part of the force. Somewhere in the rear of the line or lines, thus formed, a reserve force is stationed, ready to support any part of the army that may be too hardly pressed by the enemy.

The surgeon will locate his field hospital, if possible, in some spot out of the probable range of fire, and where it will not be likely to be in the way of movements of troops, especially of cavalry and artillery. Such spots, of course, will be in the rear of the line of battle, at any distance not too great for the ready succor of the wounded. If the formation of the ground permits, a place may be chosen behind the crest of a hill, where the elevation in front will be a safe protection from shot. A yellow flag is put at this place, or near it, as a guide for the wounded and their carriers, also as a notification to the enemy of the situation of the hospital, in order that they may avoid firing upon it. If there is a barn or house in the vicinity, it will be convenient to use it for a hospital, if not, a tent may be pitched, or even the shelter of trees resorted to. There should be a sufficient number of men detailed to the hospital, before the battle, to bring in the wounded as fast as they fall, so that on the one hand the line of battle is not weakened by men leaving their ranks to carry back the wounded, or on the other, the latter do not, by remaining too long unaided in the line, dispirit and alarm the men.

A portion of the surgeons remain at the temporary hospital to receive and attend to the wounded as they are brought in, and another party may in many instances follow close after the line of battle, to give such succor as may be necessary before the men are carried back. Each surgeon is attended by an orderly, who keeps close to him wherever he moves, and carries in a knapsack such instruments and medicines as are likely to be hastily called for. The contents of the knapsack are as follows :

CONTENTS OF HOSPITAL KNAPSACK.

1 quart Castor Oil.	1 oz. Zinci Sulph., (Squibb's.)
1 lb. Cerati Simpliciter.	$\frac{1}{2}$ oz. Argenti Nitr., fused.
4 oz. Chloroform, (Squibb's.)	2 oz. Alum, (Squibb's.)
4 oz. Ext. Ipecac.	2 yds. Emp. Ichthyocollæ.
4 doz. Pills, Cathartic, Comp.	2 yds. Emp. Adhesivi.
2 " " Mass. Hydr. grs. v.	$\frac{1}{2}$ lb. Lint.
2 " " Opii.	2 pieces Sponge.
4 " " " grj, Camph. grsij.	4 doz. Bandages, assorted.
4 " " Quinine Sulph. grs iij.	2 yds. Flannel.
1 oz. Potass. Iodide.	1 Field Tourniquet.

$\frac{1}{2}$ oz. Quinine Sulph.	4 Binder's Boards, (4x18 inches,) doubled.
4 oz. Spts. Ether, Comp. (Sqibb's.)	2 Lead Pencils.
4 oz. Spts. Terebinth.	1 quire Note Paper.
4 oz. Tinct. Opii.	1 paper Pins and 1 p'ce Tape.
4 oz. Tinct. Opii, Camph.	

AMBULANCES.

A large part of the wounded are only slightly injured, and are perfectly able to walk without assistance to the field hospital, but those who are at once disabled and fall in the line must either lie on the field till after the battle, or be carried off by the *Ambulance Corps*. The term "ambulance" is sometimes used to designate the whole organization and material of a flying hospital, and at others is restricted simply to the vehicles used for carrying the wounded.

The ambulance wagons are made either for two or four horses, and vary in their capacity. They will accommodate from two to eight patients. They are made with boxes of about the length of ten feet, set on springs, and covered with an oil-cloth to shelter the inmates from the sun and rain. There is a seat or two in front for the driver and for patients who are able to sit up. Behind the seats one or two tiers of berths are provided. These are covered with India rubber cloth that they may not be soiled with the blood, and are made so that they can be drawn out at the hinder extremity of the vehicle, thus the patient can be put in or removed without rising from his couch. In placing the wounded man in the ambulance, a berth is drawn out and placed upon the ground to receive the patient. It is then slid carefully into its place again, precisely like a drawer, with the head of the berth towards the rear end of the ambulance. Between the berths and the end of the vehicle there is a space of about eighteen inches, in which is placed a water cask.

"Ambulance carts" are constructed on similar principles, but with only two wheels. They are often of use in difficult routes, where heavier vehicles cannot proceed. The two-wheeled ambulance is considered best for patients who are very dangerously wounded. The number of these vehicles required in an army is one two wheeled ambulance for every

company, and one four wheeled ambulance in addition, for every five companies.

PANNIERS.

If the route of the command is over a region impassable to wheeled vehicles, the sick and wounded must be carried upon horses or mules. For this purpose, a long, secure saddle is constructed, to either side of which is attached a couch. One of these is made for placing the patient in a horizontal and the other in a sitting posture. In this way the parties are carried over mountain passes, or through forests where only bridle-paths exist.

HORSE-LITTERS.

A more comfortable conveyance for the patient is the "Horse-Litter." This is composed of a canvas bed, attached by the sides to two poles, each sixteen feet long. There are head and foot pieces to keep the poles asunder. The poles are of ash, two and a half inches in diameter. The head and foot pieces have canvas "dashers" rising from them, stretched on strong wire, and serving for head and foot boards to the bed. The width of the canvas is twenty-seven inches, and the length five feet, ten inches. The litter thus constructed, is carried by placing a horse or mule between the poles at either end, and attaching the extremities to a suitable harness resting across the animal's back. The horse-litter is easier for the wounded than the panniers, and is better adapted for narrow forest paths, but it requires more beasts for the service.

HAND-LITTERS OR STRETCHERS.

The United States hand-litters consist of a frame of ash with canvas stretched between. The side poles are eight feet ten inches in length, and an inch and a quarter in thickness. The cross pieces are twenty-nine inches in length, and placed one foot five inches from either end. The projecting poles serve as handles for the carriers. Hand-litters are often extemporized by cutting poles of suitable length and size, and fastening a blanket to them. Another simple litter is constructed by fastening a soldier's overcoat between two muskets.

The guns are passed in through the sleeves, and the front of of the coat is buttoned together so as to make a bed between the guns. If litters are extemporized for carrying men any great distance, cross pieces should always be lashed on to keep the poles apart, otherwise the litter will press against the hips of the carriers, and annoy them intolerably on the march.

MANAGEMENT IN BATTLE.

The heavy ambulance wagons will generally remain either with the baggage train or at such a distance from the line of battle as not to become entangled in the movements of the troops, nor too much endangered by the fire. A sufficient number of men are detailed to carry hand-litters. As fast as men fall in the ranks these carriers place them upon the litters and carry them back to the field hospital, where they are attended by the surgeons detailed for that service. Some, however, are wounded in such a manner as to require instant attention on the spot. To provide for these, a suitable number of surgeons, with their orderlies, will keep near the line, ready to go wherever called, but in general taking care not to expose themselves to more fire than is required by their duties, as the loss of the surgeon on the field disheartens the men.

In sieges, the surgeon can advance into the trenches and dress the wounded on the ground before sending them to the rear.

If a fort is bombarded, the surgeon may find it requisite to place the hospital in a bomb-proof casemate, in order to protect the patients from shells. If a town is besieged, the hospital should be located, if possible, out of the line of the heaviest fire, and its situation pointed out to the enemy by a hospital flag.

Great care should be taken by the surgeon to provide for a full supply of water during the battle. Not only is this required for dressing and cleansing wounds, but also still more urgently for drink for the wounded. The loss of blood occasions a most agonizing thirst, which is frequently aggravated by the heat of the weather, and by the fact that the soldier may have fought for many hours already, without an

opportunity to replenish his canteen. From these causes it happens that often the great cry of the wounded is for water—*water*. The men who carry the litters should keep their canteens constantly filled, and the field hospital itself should be fully provided for, either from springs, streams, or from casks previously brought to the spot and filled. The chief surgeon of the corps—called the Medical Director—assigns his subordinates to their several posts, and takes his own position at the field hospital, or “Ambulance Depot,” as it is called. If the progress of the enemy endangers the safety of the Depot, the Quartermaster should send additional guards, or remove it to a safer position, according as the commanding officer may direct.

INSTRUMENTS.

In Military Surgery some instrumental conveniences must be dispensed with for the sake of portability and simplicity. The following lists contain the instruments furnished by the government to each surgeon and assistant:

. MISCELLANEOUS.

- | | |
|--|---|
| 1 Sponge-holder, for the throat
(Buck's.) | 4 Enema Syringes, of which
1 Davidson's, |
| 8 Cupping Glasses. | 1 Hard Rubber, 6 oz. |
| 8 Tin Cups, for the same purpose. | 8 Glass Penis Syringes. |
| 6 Thumb Lancets (in cases.) | 8 India-rubber Penis Syringes. |
| 1 Spring Lancet. | 1 Set of Teeth Extracting In-
struments. |
| 1 Set of Pocket Instruments. | 1 Tongue Depressor (on a hinge.) |
| 12 Whalebone Probangs. | 8 Field Tourniquets. |
| 4 Scarificators. | 2 Spiral Tourniquets (Petit's.) |
| 1 Set of Splints (major) Welch's. | 6 Hernia Trusses. |
| 1 Stomach Pump and case. | |

AMPUTATING.

- | | |
|-----------------------------|-------------------------------|
| 1 Capital Saw. | 1 Tenaculum. |
| 1 Metacarpal Saw. | 1 Artery Needle. |
| 1 Capital Amputating Knife. | 1 Artery Forceps. |
| 1 Medium “ “ | 1 Bone Forceps. |
| 1 Small “ “ | 1 Spiral Tourniquet. |
| 1 Large Catlin. | 12 Surgeon's Needles. |
| 1 Small “ | 1 Mahogany Case, brass bound. |
| 1 Scalpel. | 1 Gutta Percha Pouch. |

TREPHING.

2 Trephines.	1 Elevator.
1 Scalpel, with Raspitor.	1 Brush.
1 Hey's Saw.	1 Mahogany Case, brass bound.

EXSECTING.

1 Bone Forceps (Liston's.)	1 Lenticular Knife.
2 " " sharp, assorted.	2 Spatulas, protecting.
1 " " for sequestra.	1 Trephine, small crown.
1 Chain Saw.	1 Ecraseur.
1 Chisel.	1 Mahogany Case, brass bound.
1 Gouge.	1 Gutta Percha Pouch.

GENERAL OPERATING.

1 Metacarpal Saw.	3 Scalpels.
1 Trocar.	1 Cataract Knife.
1 Ball Forceps.	1 " Needle.
1 Gullet "	1 Tenaculum.
1 Artery "	1 Double Hook.
1 Dressing "	6 Steel Bougies, silvered, double
2 Scissors, straight and curved.	curve, Nos. 1 and 2, 3 and 4, 5
1 Artery Needle, with 4 points.	and 6, 7 and 8, 9 and 10, 11, 12.
12 Surgeon's Needles.	6 Wax Bougies, Nos. 2, 4, 6, 8, 10.
1 Tourniquet.	3 Silver Catheters, Nos. 8, 6, 9.
1 Small Amputating Knife.	6 Gum-elastic Catheters, Nos. 1,
1 " Catlin.	3, 5, 7, 9, 11.
3 Bistouries.	2 Mahogany Cases, brass bound.
1 Hernia Knife.	1 Gutta Percha Pouch.

POCKET.

1 Large Scalpel.	1 Tenaculum.
1 Small "	1 Tenotomy Knife.
1 Artery Forceps.	1 Abscess Lancet.
1 Bull-dog Forceps.	1 Exploring Needle.
1 Curved "	1 Exploring Trocar.
1 Dressing "	1 Seton Needle.
1 Needle.	1 Spatula.
1 Sharp-pointed Bistoury.	2 Probes.
1 Probe-pointed "	1 Director.
1 Long Probe-pointed Bistoury.	1 Double Canula.
1 Straight Scissors.	1 Comp'd Silver Catheter.
1 Knee "	6 Surgeon's Needles.
1 Flat-curved Scissors.	1 Artery Needle.
1 Gum Lancet.	1 Morocco Case.

These remain in the hands of the medical officer so long as he continues in the service, but he is required to give them up on leaving.

Bandages should be made of the same material as in civil surgery, and should be rolled hard and put up in assorted packages of seven dozen each. Each package may be made up of the following sizes :

1 dozen 1 inch wide, 1 yard long.

2 " 2 " " 3 " "

2 " 2½ " " 3 " "

1 " 3 " " 4 " "

½ " 3½ " " 5 " "

½ " 4 " " 6 " "

Each roll should have its length and width marked upon it. The lint used in the service consists of scraped, ravelled and patent lint, cotton batting and wadding, and fine tow or beaten flax. The other furniture, dressings and medicines of the hospital are drawn according to certain established rules, and care is taken that every article be good and reliable.

GUN-SHOT WOUNDS.

The projectiles which cause gun-shot wounds, present a great variety, and require a brief description.

The Musket and Rifle Ball.—These are either round or conical. The old spherical ball weighed about one ounce, and in preparing the cartridge three buck-shot were enclosed with it. The minie, or conical bullets of modern warfare, are intended for shooting in rifled barrels. They are elongated, coming to a blunt point in front, and having a funnel-shaped hollow at the base. Hence, the heaviest weight being in front, the bullet flies head on without upsetting, the lightened base acting on the air exactly as does the feather of an arrow. Another and still more important use of the hollow base, is that the expansion of the powder expands it, pressing the lead into the rifle grooves, and at once securing the rotation of the ball, and preventing the leakage of gas, called wind-age. From these various reasons the elongated balls fly with much greater accuracy and force than the spherical, and as we shall see hereafter, make more deadly and destructive wounds.

Cannon Shot.—These are either round or elongated as in the musket. They are also solid or hollow—the latter being called shells. The shells are intended to burst when they strike, and destroy life by the scattering of their fragments. Small shells are thrown by hand, and called hand-grenades. In artillery, canister and grape shot are also used. They consist of a number of small balls in one cartridge, which are all fired together, like the shot from a fowling piece. They are intended for close action. Solid shot often throw splinters of wood and fragments of stone from the objects which they strike, which thus become projectiles, producing destructive results.

CHARACTERISTICS OF GUN-SHOT WOUNDS.

Powder Marks.—When a musket or other firearm is fired within a very short distance of the person, there is produced a blackened area of some inches in diameter, surrounding the bullet wound. This area is formed by unburned grains of powder and particles of carbon, which are projected like minute shot against the skin, and oftentimes imbed themselves within it. Thus lodged, the saltpetre and the sulphur are gradually dissolved and absorbed, while the carbon being insoluble, remains dispersed among the fibres of the dermis. Being too small and unirritating to cause suppuration, and thus procure their own release, they remain as permanent black spots on the skin, often greatly disfiguring the person. The proper remedy in this case, is to proceed patiently and thoroughly to extract each grain with some sharp instrument, as the point of a penknife. It has been recommended to apply corrosive sublimate to the skin, in sufficient strength to cause a superficial scab, which, when it falls off, will bring away the grains of powder entangled in it. I have not tried this, but I should fear the production of an ugly scar, unless great care were taken.

Bullet Wounds.—Where a bullet enters, it generally leaves a small, depressed, circular opening, of considerably less diameter than the projectile which made it. A small circular piece of skin is sometimes driven in before the ball. If the ball passes through the body, there is generally a difference

in the appearance of the two orifices; for, while the place of entry shows a small, depressed and circular wound, the point of exit displays a larger opening, with more ragged and everted edges. The skin, at the latter place, seems often to open in a straight line, making a sort of button-hole wound. Often, several wounds may be made by the same shot, as, for instance, where it passes through both arms and the intervening chest. One of our soldiers at Cairo was accidentally shot in such a way that the same ball passed through both thighs and his head. This curious result, was owing to his being in a bent position at the time of receiving the discharge, —his head being down beside the thigh. The curious course of bullets in the human body, has long been a topic of remark. The old-fashioned round bullet, especially, when its force is nearly spent, is liable to be deflected from its direct line by every bone, tendon, or fascia, against which it impinges. Balls striking the chest, will sometimes glance from a rib and run half around the body, between the deep and superficial fascia, and make an exit opposite the point of entrance, presenting to the eye the appearance of having gone straight through the chest. The loose tissue of the interfascial space, affords so little resistance that it becomes the favorite track of balls, of which fact, great numbers of remarkable examples present themselves to military surgeons. One soldier was struck upon the larynx by a spent ball, which traversed completely around the neck, beneath the integument, and was found lying in the orifice where it entered. Another received a ball on the outer side of the right arm. Getting into the interfascial space, the projectile ran up the arm, around the bulge of the shoulder, obliquely down the back, and was cut out under the skin of the left thigh. Hence, it is obvious that the direction which a ball had, on entering the body, is no indication of its course. These remarks apply to the old round bullets, but the modern conical balls are much less eccentric in their route. As a general rule, they pass completely through the body, in a straight course, crushing bones, piercing fasciæ, and making very destructive wounds. The hæmorrhage in these, as in most other gun-shot wounds, is generally

slight, but in a few instances, where a large vessel is cut, it is profuse and fatal. In striking the shafts of long bones, the bullet either glances off, or shatters the bone. In perforating the skull, or other flat bones, it makes a round opening, smaller on the side of entry and larger at the exit. The track of the ball is often more or less occupied with foreign bodies. Pieces of clothing, buttons, fragments of skin, and pieces of bone, are among the objects found. A thin layer of flesh, along the course of the wound, is usually pulpified and rendered gangrenous, hence, the wound rarely unites otherwise than by suppuration and granulation.

The wounds produced by cannon shot, are of course larger and more frightful than those of bullets. If they strike a limb, they tear it off, or, if they impinge upon any other part of the body, they make an equally terrific destruction. There is a peculiar class of injuries from cannon balls which has been called the wind-contusion. In these cases the skin is not broken, but the parts beneath are crushed, and in some instances, reduced to a complete pulp, even the bones being broken to fragments. The uninjured state of the skin rendered it difficult to conceive that there had been an actual contact of the shot, and hence sprung up the notion that the bruise was caused by the "wind of the ball." Recent experiments have shown that the wind of the ball is not capable of producing the slightest injury, and at the present time the wind contusion is believed to be due to the oblique stroke of a spent cannon ball, which having ricocheted along the ground, has acquired a rotary motion, and, in a manner, *rolls* across the person, crushing but not tearing.

Shells, grenades and rockets produce wounds by the fragments and the enclosed missiles thrown out in bursting. In general, they are comparable to musket shots, except that the fragments of shell being larger and more angular in their form, the laceration is more extensive.

The shock following a gun-shot wound is severe, being about equal, when large limbs are struck, to the depression following railroad accidents. The sensation produced by a bullet wound, is similar to that of receiving a smart blow

with a cane, while the smart from smaller projectiles, such as buckshot, is compared by soldiers to that of the sting of a bee.

EXAMINATION OF THE WOUNDS.

In gun-shot, as in other wounds, the aspect of the patient gives much valuable information. The amount of fright and complaint is no indication of severe injury. Some soldiers will run to the rear, bellowing lustily, from the slightest scratch, while others remain silent under mortal wounds; but the general appearance of collapse in the countenance, indicates injury of important organs, while the absence of it shows that the bullet, though striking the chest, the abdomen, or the head, has passed by without touching any vital part.

In examining these cases, after noticing the amount of shock, attention should be turned to the hæmorrhage, if any exists, and lastly, to the course and situation of the ball, and the presence of foreign bodies. The course of the ball is often quite perplexing. The finger is a proper means of examining it at the orifice, but for deeper exploration a probe is required. Ordinary probes are often sufficient, but it will be necessary to have also a longer one, armed with a little ball at the extremity. With this, as full an investigation may be made as the nature of the case permits. At the same time, the presence of foreign bodies may be determined. If the track of the ball is too long or circuitous to be easily followed, the patient should not be tortured by excessive and wearisome probings. Frequently the ball will be found on the opposite side of the body, where it may be felt as a small hard tumor under the skin. The question of whether the lung is injured or not, is one of considerable importance in certain cases. This will be decided by ascertaining whether the air escapes more freely from the wound than it should from the mere influx and efflux from a wounded pleura, and also by noticing whether the patient expectorates any blood. Notice should be taken also, in cases of wounded lungs, whether the bullet passed quite through, or lodged in the substance of the organ. More patients survive who are shot completely through the chest, than of those in whom balls stop in the lung. Many patients

recover from wounds penetrating the chest, while very few survive the passage of bullets through the abdomen. Gun-shot wounds of the brain are almost uniformly fatal, although there are a few astounding recoveries on record.

Having thoroughly examined the patient, the surgeon will proceed to the treatment, which will be the subject of the next lecture.

ARTICLE II.

PROLAPSUS UTERI WITH ULCERATION.

A Paper by DANIEL D. WAITE, M. D., Chicago, Illinois.

Read before the CHICAGO MEDICAL SOCIETY, June, 1861.

Do not suppose that I intend to make an essay upon this subject. I intend no such thing. All that I propose at this time is, to relate a case that I deem of some interest, which lately came under my notice, accompanied with some preliminary remarks, and such reflections and practical observations as would naturally arise from the case.

Under the term prolapsus, I think should be included all descent of the uterus of sufficient extent to demand the attention of the physician. Relaxation or weakness, prolapsus or procedintia, according to the books, are but so many degrees of descent; and these stages of the difficulty may be divided into three, six, or a dozen, according to the ingenuity of him who undertakes the task. But it is doubtful if they serve any useful purpose, as the remedy to be applied obviously depends upon the stage of the prolapsus, without reference to a name, and this must be learned in all cases by actual examination.

Probably the remark will be sustained by facts, that of all chronic derangements of the womb, prolapsus is the most common. It is probable that not one case in ten of those that become troublesome, can come to the actual knowledge of the physician. We had almost said that one-half of the child-bearing women of the country are in the habit of utter-

ing such complaints, as would justify the conclusion that the womb was not in its normal position. The cause of this great prevalence of the complaint in this country, beyond that of most nations, has been, and still is, a subject of interesting enquiry, but cannot be examined on this occasion.

The physiological changes upon which prolapsus depends, have been a subject of much dispute. While some contend that the principal changes, or proximate causes, are weakness, relaxation and stretching of the ligaments, others as earnestly contend that the ligaments do not figure in the case at all. Even our own Dewees, doubted if the ligaments had anything to do in sustaining the womb in place. Following out this idea, we should appear to be led to the logician's *reductio ad absurdum*; for no other use can be assigned the ligaments; and if they do not aid in sustaining the womb, they must have been formed for no purpose—which is absurd. Is a machine, so wonderfully and exquisitely wrought as the human system, made up, in part, of useless appendages? Doubtless, in my mind, the ligaments contribute, in conjunction with other parts, in keeping the womb *in situ*. But when the other sustaining parts give way, the ligaments, not being sufficient in themselves, also give way, and allow the womb to descend by their extension. While I concede that the vagina, the bladder, the rectum, and the muscles of the pelvis, all aid in bearing up the womb, I am nevertheless of the opinion that the perineum is the great sustaining part, constituting, as it does, the base of the pelvis.

The case I am about to relate, would seem to sustain this opinion. About eighteen months ago, I was consulted in relation to a falling of the womb, by a lady of fifty-five, naturally strong, robust and healthy, and accustomed to moderate or ordinary labor. I learned from her history, that for the last eight or ten years she had been troubled with a pressure of the womb downwards. The difficulty had been constantly increasing, till within the last three months she had been unable to be on her feet more than an hour or two at a time without having the organ come entirely into the world, as she expressed it; and that she was in the habit, though in great distress in

her back and loins, of travelling miles about the city in that condition. Although I knew that parallel cases existed in the books, yet never in my life having seen as bad a case as she represented her's to be, I confess I was somewhat incredulous, supposing there must be some mistake about the case; but upon examination I found it to have been truly stated. The whole organ, about once and a half its natural size, or that much larger than an ordinary sized womb, was entirely outside the body, and on a line with the same, except that the os was drawn a little back, or towards the perineum. (This has always been its position when without the body.) Although perfectly procident, it was held firmly up to the vulva, and it was a little difficult to pass the finger over the fundus. Except the enlargement, and a slightly purple hue, the uterus appeared healthy. It was so easily replaced that I was suspicious the external orifice had been injured. I enquired if the external parts had ever been lacerated; she answered no; but upon reflection, said she was told the parts were injured at the birth of her first child, in early life; but that she supposed they had been healed. She had borne two children. Considering the case a formidable one, Professor Byford was called in consultation. Upon further examination, we ascertained that the perineum had been narrowed to about one-half its natural breadth. The vagina was obviously very much enlarged, which I attributed mainly to its expansion by the enclosed womb which, it so long carried in a probably enlarged condition. But here the question arises,—did the relaxed vagina allow the descent of the uterus, existing prior to the descent, or was its relaxation caused by the continued pressure of the organ upon its parietes? There are no data upon which a confident opinion can be given, but I strongly incline to the latter supposition. If we consider the purposes which the vagina is destined to fulfill; its great capacity for expansion, and its frail structure, I think we may arrive at the conclusion that it does not *per se* afford much sustaining power to the womb, only as it fills a certain space between the womb and the perineum, upon which it itself rests. In numerous cases, the womb will be found prolapsed into the vagina, and

resting upon the perineum. This has been a common occurrence in my own practice, from which I must in a great measure draw my conclusions; and I presume, from what I have learned, that it is not uncommon anywhere. But it seems that the perineum and sphincter vagina, will, in ordinary cases, long sustain the womb without allowing it to protrude. In the case under consideration, the woman had tried a variety of pessaries, without much benefit, as the pendant womb would soon press them out, and for the very plain reason that they had no sufficient floor to rest upon.

Professor Byford recommended the India rubber inflation pessary, which was procured. But this, although inflated to the size of a man's fist, would, after a short time upon the feet, be forced through the os externum. The Doctor carefully measured the womb, outside and in, from which measurement the conclusion as to its engorgement and enlargement was arrived at. With the advice of close and firm bandaging, we left her, in the belief that the case was probably incurable, except by an operation that would diminish the size and capacity of the vagina. This she was not inclined to submit to at the time, nor, indeed, were we prepared strongly to advise it. I saw her frequently during the ensuing year, trying to keep house, and, of course, much upon her feet, carrying the womb a large share of the time, when not in bed, between the thighs. It is proper to say, that she had an almost constant leaking of the urine, which soon wet the bandages and clothing, rendering them not only uncomfortable, but offensive. She always said she got along very badly, but as well as she could. She said she sometimes felt as though she should "drop down in her tracks," such was the distress in her back and loins, and occasionally across her body. She is naturally a woman of great fortitude and courage, but now becoming nervous and irritable.

Three months ago, she applied again. She said she was much worse; and could not live so any longer. She said blood and matter in considerable quantities were constantly discharged; that she was getting very weak, and that it hurt her very much to put up the womb. Examining, I found the

mouth of the womb extensively ulcerated, and the whole organ irritated and more enlarged. One side of the os, including nearly one-half of the ring, was entirely eaten away, the ulcer extending inwardly as far as could be seen, and outward and upward more than an inch. From several other points at and near the os, and from the inside, matter exuded on pressure. If "seeing is believing," in this case seeing was knowing. No imperfect speculum knowledge was needed. Here we had the naked fact; and naked enough too. After thoroughly washing the parts, I applied the hard lunar caustic to the ulcerated portions, burning it severely, and passing it slightly over the lower half of the organ. This I repeated every other day, for five or six times. Still on discontinuing the application a week, the ulcers resumed nearly the same appearance, and all the while discharging largely a thin, greenish-white matter. Somewhat discouraged, and fearing from the irregular and somewhat jagged appearance, some specific tendency in the ulcers, Dr. O. Smith was consulted. On examination, the Dr. although somewhat suspicious of the ulcers, thought they might probably be cured, and for that purpose, recommended a strong solution of the per-sulphate of iron. This application I used for about a week, producing a favorable appearance, but not seeming to have a sovereign effect. Ascertaining that I could not obtain a strong tincture of this article, I obtained, at the suggestion of the apothecary, a concentrated tincture of the per-chloride of iron. This, from Reed's, was rather more escharotic than desirable, and was reduced by one-half water. This application with a large camel's hair pencil, turned the parts a light yellow, and seemed to act as a powerful astringent, rendering the muscle hard and firm to the touch. After being applied every other day, thoroughly, for five or six times, the discharges ceased. The application was continued in this way about two weeks, the ulcers being then about half healed, and the womb firmer and smaller. The action of the chloride was not confined to the ulcerated portions, but passed freely over a large share of the body of the womb. From the period of my commencing with the ulcers, the iodide of potassium had been exhibited in

pretty free doses, which, by the advice of Dr. Smith, was carried as high as forty grains per day. Three weeks after the last application, I found the parts entirely healed, the womb looking healthy, and, as near as I could judge, of the natural size.

Ashwell says: "The womb may be irritated into ulceration by pessaries and other local causes." And he adds, "this may occur with much bleeding in case of entire procidence. We all know the varying depth and extent of such ulcers, and how extremely difficult they are to heal." It seems pretty clear that in this case the womb had been goaded into ulceration by the friction of external irritants.

It may be worthy of notice that no application to the uterus produced any pain, or apparent sensation, unless carried within the os. Even when thoroughly burned with the nitrate of silver not the least complaint was made. A solution of the nitrate, or the tincture carried a little within the neck, produced an immediate start, followed by pain in the back.

A *T* bandage, protected by oiled silk, is now worn, and the womb in this way is kept within the vulva, except as it will occasionally slip out. Since the reduction of its size, it seems much easier to keep it within the body. And I think the tincture has had an astringent effect upon the vagina, and perhaps upon the ligaments. Certain it is that the womb is more easily retained inside now than formerly. She is quite thankful for her more comfortable condition, and unless she gets worse, will not be likely to submit to an operation, if advised.

Query: What further can be done for this woman? Is the operation of excising a portion of the vagina safe and advisable?

Perhaps I should say that I have vainly endeavored to confine this patient to a horizontal position while a cure was attempted. For a few days, while at the worst, she was on her couch, say one half of the time. But at the present time, one month after the cure of the uterus, she is keeping an apple and candy shop, and although complaining severely of

her back and hips, she is almost continually on her feet, except during the usual hours of rest.

ADDENDA.—The above communication was read before the Chicago Medical Society on the third Friday in June. Two weeks after this date I was again consulted; the woman saying that there was again some discharge of blood and matter. On examination, I found a small ulcer on the location of the former one, and some blood escaping from the os. The os was also somewhat swollen from irritation. Three or four applications of the per-chloride healed it perfectly, and stopped the discharge of blood. The womb now again appears healthy, and does not as readily escape from the body.

D. D. W.

CHICAGO, July 9, 1861.

ARTICLE III.

SPINA BIFIDA.—By VINDEK.

TO THE EDITORS OF THE CHICAGO MEDICAL EXAMINER.

GENTLEMEN:—A perusal of the periodical literature of our profession cannot fail occasionally to impress the reader with the great anxiety some manifest to secure a niche in the temple of Fame, be it never so humble, provided they can thus enjoy a transient glance from their fellows, or perhaps even reach a fleeting and ephemeral notoriety.

This longing for distinction exhibits itself in various ways. At times it is seen in the modification of instruments, often termed "improvement" of such, when the very reverse, through the ingenuity of the inventor, is effected. Then, again, we have "improved" modes of operation, wherein some unimportant innovation is proposed. Or, it may be, that a master-mind has suggested a relation between a particular remedy and a disease; the suggestion, in itself, involving all the originality of discovery, and all the merit of subsequent development. Still, as we know, science is slow in coming to maturity, and time may be required for a full un-

folding of the germ in the perfection of ultimate practical utility. In the interval, however, some aspirants after fame will be occasionally found endeavoring to anticipate the subsequent efforts of the author, who, having supplied them with a clew, has thus facilitated their task. But not content with quartering their own empty performances with his substantial merit, they will not hesitate to thrust themselves prominently forward, and by this *modest* intervention, try to eclipse his well-earned fame. These reflections have been suggested by a glance at the Report, made by the Chairman of the Committee of Surgery, presented at the Tenth Annual Meeting of the Illinois State Medical Society. Section xviii. of this "Report" relates to the treatment of spina bifida by injection of iodine. The reporter tells us that this operation was first proposed and performed in Chicago, May 3, 1848. In the Report we are not directly informed by whom it was, at that time, proposed and performed; but from its scattered and fragmentary materials we are permitted indirectly to gather the claim of the reporter himself to originality of planning and priority of performing the operation in question. Now, I am not disposed to recognize either claim. So far back as 1836, Velpeau employed iodine as an injection in hydrocele with such success as to extend its application to *various serous cysts*. In his "Operative Medicine," published in 1839, he suggested it might, without danger, be even thrown into the peritoneal cavity; and in 1840, he thus injected the knee joint. In injecting such a tumour as that of spina bifida, no one supposes that he deals with anything more than a serous cyst, as far, at least, as the action of the iodine on its surface is concerned. He does not imagine he thus remedies an organic affection of the nervous tissue, that may be at the time associated with it. If the disease be accompanied by this morbid condition it is not susceptible of remedy from any plan of treatment; if otherwise, it is to be considered a serous cyst, and to be treated as such. The humblest intellect might conclude that similarity of structure and of diseased action necessarily indicate the suitableness of similar therapeutic means. In fact, as Velpeau himself remarks, injection succeeds best

in proportion as the cavity more nearly approaches a simple serous one. Thus, in cysts of the neck, where the membrane containing the fluid is everywhere surrounded by soft tissues, the operation never fails. It is to Velpeau, then, that science is indebted for suggesting this mode of treatment in serous cysts, and their allied diseases. The conception was the fruit of his understanding, and of his only. That the reporter's claim to having first performed the operation is not recognized in France by the profession, the affirmative of which we might be induced to infer by reading the *Chicago Medical Journal*, I beg to refer your readers to a review of the *Bulletin de Thérapeutique*, by the editor of the *Gazette Médicale* of April, 1854.* The reviewer there tells us distinctly that Velpeau was the first who performed the operation of injecting the sac of spina bifida. On the same occasion he notices Chassaignac's case, to which allusion is made in the report before me. Now, if the claim of the writer of the report had been allowed in France, is it probable that the accomplished editor of the *Gazette Médicale* would have told us that Chassaignac's was the second example of spina bifida treated by injection of iodine, and that Velpeau's was the first? It was my intention to confine myself to the report and not (to use a legal phrase) "travel out of the record," had not the reporter referred us to the *Chicago Medical Journal* for Sept., 1859. Now, in the same number of this journal I observe, what appears to me, another inaccuracy. The writer informs us that Mott's case of spina bifida, cured by excision, was "probably not connected with the spine." Mott cured two cases by exsection, in one of which he distinctly tells us, that in extirpating the tumour, "a communication of about the size of a crow-quill was found leading into the cavity of the spinal marrow."†

The reporter favors us with some rules to guide us in the operation, the most of which have reference to the selection of a suitable point for the insertion of the trochar, and the restricting of the amount of serum evacuated, to a correspond-

* *Vide Gazette Médicale*. April 15, 1854. p. 220.

† *Vide* Velpeau's "New Elements of Operative Surgery," with notes, &c., by Val. Mott. Vol. iii., p. 810.

ing quantity of the fluid to be injected. He then adds: "in the cases operated on by Chassaignac, Nelaton and Velpeau these precautions were not taken." How does the reporter know that these precautions were not taken by Chassaignac and Velpeau? He acknowledges, in the *Chicago Medical Journal* for Sept., 1859, that he had not seen any published observations of Velpeau's case, and it may therefore be presumed he was unacquainted with the details. As to Chassaignac's case, it lies before me, and I see nothing in it to warrant such an observation. Both were successful. Does the writer mean it should be inferred that, owing to the want of proper precautions, they were not? If this be not his meaning, I cannot avoid remarking, the sentence is most infelicitously expressed.

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CHICAGO, JULY 20, 1861.

ARTICLE IV.

AN EXPERIMENT WITH KEROSOLENE--A NEW ANÆSTHETIC.

By E. ANDREWS, M. D., Prof. of Surgery in Lind University.

This fluid is a hydrocarbon of the series obtained by distillation of bituminous coal. It appears to be the most volatile of its class, having less specific gravity than ether, and seeming to be about equally volatile. The odor is but slight, and in kind resembles that of other coal oils. Dr. Bigelow, of Boston, states that it is "as tasteless as water," but this is an error, as it has a distinct, though not strong, flavor. On the whole it is much less pungent, both to taste and smell, than chloroform and ether.

It has been my opinion for some years that all the volatile hydrocarbons were anæsthetics, including coal gas, which latter I have proved by experiment.

The anæsthetic qualities of kerosolene were first observed in a kerosene factory, where it was noticed that men who were sent down into the vats became narcotized by the inhaled vapor, and on removal to fresh air recovered without

injury. As the kerosolene is the most volatile of the compounds present in these oils, it was presumed to be the chief anæsthetic agent present, and was selected for experiment.

On the 19th of July, Dr. Dickinson, of St. Louis, called upon me and presented a can of the fluid, with a request that it might be tested. As there happened to be present at the moment a patient of the Chicago Dispensary, to be sounded for stone in the bladder, I determined to try the article at once. Accordingly, the patient was laid upon a sofa, and at my request, Dr. Dickinson commenced the administration. It was given by sprinkling upon a handkerchief in the same manner as chloroform, taking care to secure an abundant access of air. The patient seemed to take it with ease and comfort, and for several minutes everything went on well. The pulse was full, and somewhat accelerated, but it did not intermit or flag in any part of the procedure. At length the anæsthesia began to come on, when the countenance appeared flushed, and the eye a little unnaturally open and staring. In a short time the patient made an effort to rise up in a sitting posture, and was immediately attacked with moderate convulsions. The administration was discontinued until these effects subsided, and then carefully resumed, but the result was another attack of the convulsions. Again, suspending the inhalation until the muscular excitement ceased, a third effort was made to proceed, but this was also checked by a third attack of the spasms. Great as was my desire to test the article, I did not deem it prudent to persist in the face of such warnings, therefore laying aside the kerosolene, the anæsthesia was finished with a mixture of ether and chloroform. No further convulsive motions occurred. Both the pulse and the respiration were well sustained during the inhalation of the kerosolene, the only exception being that during the convulsions a moderate check of respiratory movement occurred, in consequence of the rigid contraction of the muscles of the chest. The result was a momentary dusky redness of the face at each convulsion, similar to that which occurs in epilepsy.

On the whole, the symptoms were alarming but not disas-

trous. If this shall be found a frequent result, it will effectually exclude the article from use.

Dr. H. J. Bigelow, of Boston, has experimented once upon himself, and four times upon others, with this fluid. In his own case its action was all that could be desired, but in all the other instances unpleasant effects occurred, such as failure of respiration, intermittent pulse, and muscular rigidity. I make an extract from his communication to the *Boston Medical and Surgical Journal*:

This fluid presents remarkable properties. It is tasteless as water, volatile and inflammable as ether, though burning with a dense white light; of a faint chloroform odor, which, as it evaporates, changes to that of coal tar, and then disappears absolutely and altogether; so that a handkerchief, saturated with the fluid has, at the end of a few minutes, when dry, no odor at all, nor has the room or atmosphere where it has been used, any trace of its presence. Both ether and chloroform leave, in different degrees, a persistent, *fæid* and stale aroma after evaporation, as is well known. They are also far less agreeable to inhale than this new agent, which has thus an obvious advantage over either of them.

A few whiffs were sufficient assurance of its efficacy as an anæsthetic, which, with its other qualities, as I ventured to remark, would place the kerosolene beyond any known anæsthetic, provided its use was not followed by headache, vertigo or other unpleasant symptoms, and provided it should prove as free from danger as ether.

Subsequently, I inhaled the new vapor, which Dr. Hodges, at my request, administered. Complete insensibility supervened, lasting several minutes, with some diminution of the volume of the pulse. Its effect was wholly agreeable, leaving neither headache nor nausea, nor bad taste.

I have this morning administered it to three surgical patients. The first, a girl of 19, presenting some hysteric tendencies, having thrust some twenty needles in her leg, was wholly insensible during the extraction of four of those which remained. Yet there was more cough than I had expected from the wholly unirritating odor of the vapor, more muscular rigor than usual in favorable anæsthesia, and more intermittence of the pulse.

In a second patient, to whom it was given preparatory to an operation upon the face, insensibility was equally complete. But this woman did not take it kindly, and its complete effect was attended by so feeble and intermittent a

pulse as to lead me to desist until she had recovered. A second attempt reproduced, with anæsthesia, the feeble and intermittent pulse, and I again desisted. Upon her recovery, I gave her common ether vapor, which she afterwards said was less agreeable, but which was followed by complete insensibility, the pulse beating steadily and full, at 76. Though this patient perhaps succumbed more readily to a third anæsthesia, there seemed to be in the two first trials a certain degree of purple color and asphyxia, with its attendant spasm, which I have elsewhere described as an occasional and disagreeable symptom of anæsthesia. To guard against this asphyxia, which might possibly have resulted from the folded towel, upon which I habitually administer ether, I tried in the next case an open sponge. The subject required a considerable incision for a mammary abscess, and was a patient of Dr. H. G. Clark, with whose assent I tried the kerosolene. In spite of the open sponge, the symptoms of asphyxia again appeared, suggesting to Dr. Clark before operating, their resemblance to those resulting from charcoal gas. The color was livid, and the rigidity marked. In each of these cases, the quantity used was from one to two ounces.

In conclusion, it may be remarked of these three cases, that they are insufficient for satisfactory demonstration, and that their common and unfavorable symptoms may well have been but a coincidence; yet they suggest some caution in the use of the kerosolene vapor. It is probably more potent than that of ether, requires a free admixture of air, and may produce upon the system some impression or influence, other than that of the mere intoxication attendant upon the use of ether. In awaiting further evidence, it may be considered established that kerosolene is an anæsthetic of undoubted efficiency, and that it possesses certain remarkable and attractive properties peculiar to itself.

ARTICLE V.

FRACTURES OF THE SPINE.

At the last regular meeting of the Chicago Medical Society, Dr. Amerman presented two specimens of fractures of vertebræ, with the following histories:

Case I. Henry Aurz, aged 27, born in Germany; by occupation a lumberman; of good health and temperate habits.

On the 16th of March, 1861, whilst engaged in log-rolling, his foot slipped, and he fell in such a manner that several logs rolled on him, bending his body forward. He was immediately deprived of motion and sensation in his lower limbs. April 1st, fifteen days after the occurrence of the injury, he was admitted into the Chicago City Hospital. At the time of his admission the paralysis was complete. The urine and faeces were passed involuntarily. On examining the spine, an irregularity was readily perceived in the lower dorsal region, but no crepitus. There was also some pain on pressure, otherwise the parts appeared natural. A small bed-sore existed over the sacrum, produced previous to his removal to the hospital. The urine was thick, and deposited a heavy sediment of mucus, pus and salts. Pulse ranged from 100 to 120; appetite good; no pain; and patient rested well at night.

The treatment consisted in placing the patient in the most favorable position to guard against pressure and the occurrence of bed sores, and paying the strictest attention to cleanliness. In addition he was given good diet, quin et ferri, and emulcent drinks. He died April 12, twenty-seven days after the receipt of the injury. Autopsy held day after death. The soft parts were healthy, except just around the seat of the injury, where there were some ecchymosed spots. The injuries done to the vertebræ were confined to the eleventh and twelfth dorsal. The only injury to the eleventh was fracture of the right transverse process, at its junction with the lamina and pedicle. The injury of the twelfth consisted of a fracture of the body near its upper surface, extending on the left side through the pedicle, between the superior articular and transverse processes, thus allowing the eleventh to project forward and compress the cord. The left transverse process was also entirely broken off and lost in preparing the specimen. The cord was uninjured.

Case II. John Donnally, aged 28; by occupation a carpenter; general health good; habits temperate. On the 10th of March, 1861, a large piece of timber struck him a severe blow in the back, and he fell about twelve feet. He was im-

mediately paralyzed in his lower extremities. On the 24th of April, six weeks after the injury, he was brought to the Chicago City Hospital. At the time of his admission there was complete loss of sensation and motion of the lower half of the body with involuntary discharge of the urine and feces, and an immense sloughing bed-sore over the sacrum. The treatment consisted in removing pressure as much as possible, keeping the patient clean, allowing full diet, and other measures of a supporting character. He died May 24th, one month after admission into the Hospital, and eleven weeks after the receipt of the injury. Autopsy day after death. No injury of external soft parts. The injuries of the vertebræ were of the third and fourth dorsal. The fourth was fractured entirely through the body, near its middle, with the upper fragment pushed forward and toward the left side. No appearance of any attempt at union. The third was the seat of a very interesting condition. The body had sustained an impacted fracture, the lower half being driven into the upper, and ossific material poured out in considerable quantity, filling up the irregularities. The right transverse process had been entirely broken off, but re-united as firmly as ever with slight displacement downward. The cord was softened for about two inches of its length, and compressed.

THESE CASES are highly suggestive to a thoughtful surgeon. We do not think that all the possibilities of surgical help are exhausted in the treatment, or rather non-treatment of fractured vertebræ. As these cases came under the care of Dr. Amerman respectively two and six weeks after the receipt of the injuries, it was obviously too late for him to propose any radical measures; but where a case is brought to the surgeon immediately after the accident, it seems to us that more might often be done than our text books allow us to undertake.

In Case I, had the surgeon been fortunate enough to see it at the outset, there were obviously two possible modes of relieving the spinal cord of pressure. The first would have been by a firm and steady extension upon the head and hips, as has been advised in cervical fractures. By this method, pos-

sibly, the eleventh vertebra might have been reduced to its position. If this effort failed, the next resource would be to saw away the compressing arches of the tenth and eleventh vertebrae. This is absurdly objected to by authors, on the ground that it would lay open the dura mater and evacuate the spinal fluid; but no such result need follow. It is not much more difficult to cut away the arches of the vertebrae without wounding the dura mater, than it is to trephine the skull with the same immunity. The same reasons for the operation exist in both cases, and there is no ground for expecting more danger in one than the other. Total compression of the spinal cord is a mortal injury, unless relieved, and hence it is foolish to object to any moderately dangerous operation which promises possible success. It would be quite as rational to reject trepanning in depressed fractures of the skull.

Probably a certain number of failures would result from the fact that sometimes the cord is completely crushed off and disorganized, and in others it is so strained across the displaced fragments of the body of the vertebra, as to receive effectual compression from the front, but a good many cases would probably remain, which would justify the surgeon's boldness by a successful issue.

DIURETIC ACTION OF COLCHICUM.—Prof. WM. A. HAMMOND, of the University of Maryland, in some experiments instituted upon himself and others, arrived at the following conclusions: 1st, That the colchicum increases the quantity of urine; 2d, That it increases the total amount of solid matters eliminated; 3d, That this increase is mainly due to an augmentation of the organic matter; 4th, That the amount of uric acid does not appear to be affected.

He thinks colchicum must be allowed to be a true depurator of the blood, and that hence we have an explanation of its good effects in those blood diseases, gout and rheumatism.

It seems that no constant effect was produced upon the quantity of uric acid eliminated, and hence these experiments do not conflict with those of Dr. GARROD. We are not, however, bound to admit that the presence of uric acid in the blood in

increased amount during a paroxysm of gout or rheumatism, is the cause of that paroxysm; and, consequently, because colicium does not increase the quantity of this substance found in the urine, we are not to suppose that the remedy in question does not exert its influence through the kidneys.—*American Medical Monthly.*

The Clinique.

MERCY HOSPITAL—SURGICAL WARDS.

Service of Prof. E. ANDREWS, M. D., Attending Surgeon.

Reported for the EXAMINER.

GENTLEMEN:—The patient before us presents a well developed example of the tumor called *Epulis*. This term, which has come down to us on the venerable authority of the Greek physicians, is derived from two words, which signify, “upon the gum”: but with all due respect to the shades of old surgical heroes, the name is an unfortunate one, for the tumor is not *upon* the gum, but *under* it. However, let us not insult the dead, for a glance at the most modern surgical works will show you that our best writers have not, in this disease, advanced a step beyond Hippocrates.

The term epulis is loosely applied to all kinds of tumors springing from the alveolar processes. As some of them are benign and others malignant, and as each writer describes the kind which has most attracted his own attention, we have given us the most contradictory accounts of this disease. The truth is, the word epulis should be abandoned, because it only indicates the locality of the disease, and we should speak simply of a fibrous, a bony, a benign or a malignant tumor of the alveolar processes, just as we do in any other part of the body.

The case before us is of the malignant variety. It has been in existence about six years, but until the past two months, its growth was slow. During the latter period, it has taken

on a great activity, and has now attained a size which will necessitate a loss of a portion of the lower maxilla. At first, these cases present a small, innocent looking tumor at the roots of some of the teeth, elevating the gum, and having a more or less constricted base. For a long time it may occasion no remarkable inconvenience, but at length it will be observed that one or more of the teeth are loosened, and that the adjoining ones are gradually falling into the same condition. Finally, they drop out, and an open sore is the result. The disease continues to spread, contaminating the glands of the neck and destroying the organs of the mouth, until the patient sinks and dies. In the present case, the growth has loosened all the incisor teeth of the lower jaw, and projects both on the inner and outer side of the symphysis. Also, you observe, there is a hard, scirrhus-like lymphatic gland under the right side of the jaw, and connected to the present tumor.

The malignant epulis is generally of the variety called canceroid, and like canceroid diseases of the lip, it is capable of cure by early excision. In all cases, however, it must be remembered that the tumor springs from the bone itself, and hence the excision must remove all the affected portion of the alveolar process,—otherwise it will certainly return. A mere shaving off of the soft parts will be of no use whatever. The best method is usually to administer an anæsthetic, and then proceed to extract all the loosened teeth. Next, to make sure work, remove one firm tooth on either side of the gap. Carry an incision around the tumor, at a little distance from it, cutting quite down to the bone, and remove the growth by dissection. If nearly the whole thickness of the jaw is affected, a section of it may be sawn out, but usually it will be sufficient to cut away the affected alveolar processes, with the gouge forceps, continuing the removal until you reach perfectly sound bone.

In the present instance, the patient has neglected herself rather too long, and I fear for the ultimate result, but yet I consider an operation to be her only hope.

As she is now sufficiently under the influence of the ether, I will commence by extracting the loosened incisors. You

observe that the canines are firm, but it will be safest to extract them also, because it is almost certain that their sockets on the side next to the incisors, are more or less contaminated. This being accomplished, and the soft part of the tumor cut away, I will cut down with the saw on either side, about two-thirds the depth of the jaw, and remove the intervening bone with gouge forceps. Thus you see we have excised every visible trace of the original disease. There only remains the hard tumor under the right side of the jaw. This, from its situation, must be taken out by an incision through the skin. Carrying my scalpel, therefore, along the base of the maxilla, you observe that I cut through the skin, fasciæ, and the thin plane of the platysma myoides muscle. The tumor is then easily dissected out, except the line of connection with the original epulis. This indurated chord I isolate, by pushing a straight bistoury through into the floor of the mouth, and carrying it around the offending tissue.

Thus we have removed the whole of the disease, so far as we can judge, and as the malignancy of this form of epulis is a modified form, there is a reasonable hope of permanent cure. I confess to you, however, I would much rather that this case had come to me earlier, before any progress had been made beyond the alveolar process. As it is, we have done our duty, and given the patient the best chance which the present advanced stage of the disease admits.

CHICAGO MEDICAL DISPENSARY.

Service, Prof. WM. H. BYFORD, Attending Physician.

Reported for the EXAMINER.

I. *Ague-Cake*.—Patrick Gougens, æt. 16 years; has been under treatment some six months, and was presented at the clinic of July 13th, as a good illustration of that form of disease accompanying the intermittent, and, probably, some other forms of fever,—namely: the *enlarged spleen*.

The patient's history is briefly, as follows:—When about ten years of age, while residing at Ft. Hamilton, N. Y., he had an

attack of fever and ague (intermittent fever,) which lasted about two years, and towards the close of which the body began to swell, and a lump was discovered in the left side. For this, little was done, until about twelve months since, when, at the suggestion of an old woman, he commenced taking the following decoction: a handful each of horse-radish, parsley-root and lignum-vitæ shavings, with a pint of white mustard seed, were boiled twenty-four hours in a half-gallon of hard cider; of this, half a glassful was taken three times a day. The swelling (ascites) subsided, and, with the exception of the "hard lump" in the left side, the boy has been pretty well since.

An examination by the class, revealed the following condition:—abdomen very much enlarged, particularly in the hypochondriac and epigastric regions; and on a more minute survey the boundaries of an enormously enlarged spleen were very clearly defined,—extending from under the false ribs to the crest of the ilium on the left side, and beyond the linea alba in the median line—completely filling up the whole of the hypochondriac and epigastric regions of the left side, and rendering the abdomen tense and hard as a board to the touch. The liver was also found to be considerably enlarged,—extending some three inches below the floating ribs on the right side, with a thin but hard edge, which dipped beneath the spleen in the epigastric region. The surface of the spleen is flat and even, not nodulated or irregularly elevated; the lower boundary may be felt, as a thin, hard edge, by pressing the abdominal walls forcibly towards the spine, and its right margin may be made to glide over the liver, a little to the right of the median line.

In commenting upon the case, the lecturer remarked that it seemed to be almost a necessary part of the pathology of the intermittent fevers, that the spleen should become involved, and so uniformly was this the case as to have led theorists and speculators to urge that these diseases commence in the spleen. This, however, is by no means clearly proven; nor is the pathological explanation entirely satisfactory,—that splenic disorders depend on a congested condition of the por-

tal circulation, owing to the blood being driven in from the capillaries during the cold stage; the continuance of which congestion causes the hypertrophy,—a condition of affairs also affecting the liver with like results. The fact, however, that the cure of the fever does not cure these accompaniments; and the still stronger facts, that ague-cake is not unfrequently met with in persons who have resided in malarious regions where the intermittents prevail, and yet, who have never had an attack of the disease, shows the necessity for still further research. And this, following the clue given by this last class of cases, leads to the suspicion that the peculiar influence,—miasm, malaria or whatever it is,—which produces the intermittents, is also the cause of the enlarged spleen and liver. And this we accept as a satisfactory explanation. The effect produced on the blood, by chills and fever, is very apparent in the destruction of the red globules; whether proximately, in the mass of the general circulation, or secondarily, through failure in the functions of the spleen,—this last, caused partially by congestion and stasis of the portal circulation, but mainly by the morbid effect of the miasmatic poison,—is rendered doubtful, by our ignorance of the office of this organ.

The congestion, however, produces effects about which we can entertain no doubts, in damming up the blood in the large veins of the abdomen, soon followed by deterioration of the whole mass of that fluid, and the destruction of the equilibrium between its solid and liquid constituents,—the preponderance of the latter, tending towards extravasation and effusions, soon apparent in the more dependent parts of the body. This is the received explanation of the production of dropsies in chills and fever, and, doubtless, was the case with the boy before us. But dropsy may be produced in another manner,—by direct pressure on the trunks of large veins, either by enlarged organs near which they pass,—as in the anasarca of the lower extremities of pregnant women, produced by the pressure of the gravid uterus on the iliac veins,—or by aneurisms, hernias, etc. Any enlargement of the abdominal viscera is apt to produce such results; pressure on

the inferior vena cava, causing œdema of the lower extremities, and on the mesenteric veins causing abdominal effusions or ascites. This latter, coupled with the existence of these large veins on the surface of the abdomen enables us to diagnose, pretty accurately, the point of pressure. We see these veins, arising in the thorax, spreading, in a tortuous manner, over the abdomen, and penetrating it in the iliac region, performing the duties of the mesenteric, in gathering the blood from the intestines. Pressure on the emulgent veins also produces complications, the most frequent of which is albuminuria, many cases of which I have clearly traced to this cause.

In diagnosing enlarged spleen, care should be taken to make a thorough examination; strip the patient and examine thoroughly by palpation and percussion; and then, in connection with the history of the case, but little difficulty will be found in determining the character of the tumor. The history from the patient is valuable and important in this respect. Ascertain whether he has ever lived in a malarious region, and if so, how long; whether he had had intermittent, remittent or typhoid fever, previous to the abdominal swelling. Enlargements of the spleen or liver always commence to show the swelling in one of the hypochondriac regions, and this gradually extends downwards into the abdomen, and the patient, if intelligent, will so describe its progress. Inquiries as to the previous state of health, are also important,—as these disorders never occur while in absolute good health, though there may, it is true, be no serious illness. These points will enable you to avoid the error of one of our country practitioners, who recently sent me a case of ovarian tumor, the history of which, before making any examination, clearly pointed out the existence of a simple, harmless, enlarged spleen.

The treatment may be inferred from this last remark, to be one of time and hygienic observances, rather than actively medicinal. The patient's health must be kept at the highest possible point; his diet must be generous, but not stimulating, good beef and mutton, forming a large proportion of it; he must exercise freely, in the open air if possible, and yet

must guard against exposure. Above all he must be removed at once from the influence of the miasmatic poison which, causing the trouble originally, is capable of maintaining its evil effects, and of neutralizing all attempts at cure. If medical interference be deemed necessary, you will fail if you resort to iodine or mercurials; but the agent, so specific in the intermittents,—*quinine*,—will be found most beneficial. This may be given in grain doses, three times a day, for two or three weeks, then intermit for a like space, and renew; this seems to be a necessary precaution against the action of the salt wearing out by long use.

This lad's occupation (that of a news-boy) keeps him in the open air a good deal, and the observance of the hints already given, are gradually and steadily improving his condition, so that now, aside from the somewhat aldermanic proportions of his abdomen, he is comfortable, and enjoys a very good degree of health.

II. *Triple Hernia*.*—I show you here an interesting case presenting the unusual combination of three congenital hernias, of which two are scrotal, and one umbilical. Congenital hernias are the result of arrested development, in consequence of which the inguinal or umbilical canals remain open after birth, instead of closing at the proper period. The scrotal hernias, you see, are quite large, but easily reduced, and in nothing different from other tumors of the same kind. The umbilical rupture is small and soft. It is common to meet this congenital defect in any one of the three places which you see here occupied, but it is very rare to find the patient having them all at once.

Fortunately, although the canals in question occasionally remain open until after birth, yet the foetal tendency to close them still continues for many months. Hence, in these cases we may almost always obtain a radical cure without any operative interference. All that is necessary is to keep the hernia constantly reduced, so that the presence of the intestine shall not prevent the contraction of the canal. By this simple

* Service, Prof. E. ANDREWS, Attending Surgeon.

treatment the tube, in from one to eight months, will close of itself, and put a final end to the difficulty.

In the umbilical hernia the treatment is not only simple in principle, but easy in practice. All that is required is a flat compress, made of sheet lead, or any other convenient material, and a band to keep it constantly in place. The nurse must be instructed to hold her finger upon the tumor whenever the compress is changed for purposes of cleanliness.

The inguinal hernia is more difficult to treat, because the infant is usually too small to be fitted by any ready made truss. If you have access to an ingenious mechanic you may order a truss made for the case; but, if not, you must construct one upon the principle of the compress and *T* bandage. The practical difficulty is that the child constantly soils the bandage and compress with its excrements. This may be met by having a sufficient supply of the dressings on hand, so that like the diapers, they can be changed and washed as many times a day as is necessary. Of course, the nurse must be instructed how to apply them, and where to make pressure with the fingers, for the purpose of keeping up the intestine, when she makes the change of bandages.

Medical Societies.

CHICAGO MEDICAL SOCIETY.

The Society met as usual. The Sanitary Committee was appointed by the President, as follows: Dr. Holmes for the North Side, Dr. Davis for the South Side, and Dr. H. W. Jones for the West Side. Dr. Davis made a verbal report for his division, and Dr. Holmes also. Dr. Holmes reported eight cases of diphtheria in his practice, during the last four weeks, three of which were fatal.

Dr. Davis reported a case of poisoning by arsenic. The poison was sent from some drug store in this city, instead of cream of tartar.—[See paper appended.]

Dr. Dickinson, of St. Louis, was introduced to the Society, and brought to their notice a new anæsthetic, discovered during the manufacture of kerosene, and, for the present, named *kerosolene*. [A paper from Dr. Dickinson will be found in another portion of this number, embodying all that is as yet known of this article.] On motion of Dr. C. G. Smith, the kerosolene was referred to a committee, with a request to examine and report on its qualities at the next meeting. The Chair named as the committee, Dr. Amerman, Dr. Orrin Smith, Dr. Wickersham.

Dr. Wickersham related a case of partial anæsthesia, produced by inhaling the vapor of the oil of turpentine.

Asthma, the proposed subject, was then discussed by Dr. Amerman, Dr. C. G. Smith, Dr. Waite, Dr. Orrin Smith, and Dr. Wickersham. Dr. Amerman showed an interesting specimen of aneurism of the aorta, in which a large secondary sac had been found, which finally communicated to the trachea, causing death. Dr. C. G. Smith exhibited a specimen of fractured skull.

On motion of Dr. Wickersham, it was voted, that reports of cases shall come before the regular discussion, in the order of business.

The following was chosen as a subject for discussion for the next meeting: "*The influence of Iodide of Potassium on the system.*"

Dr. Reilly was chosen as the essayist.

CHARLES G. SMITH, *Secretary*.

CHICAGO, 19th July, 1861.

CASES OF ARSENICAL POISONING, REPORTED TO THE CHICAGO MEDICAL SOCIETY, JULY 19, 1861. BY N. S. DAVIS, M. D., PROF. OF PRACTICAL MEDICINE, ETC.

On the evening of the 8th inst., I was called hastily to a boarding house only a few rods distant from my residence. I found five members of the family, including Mrs. P., the lady of the house and her daughter, two young men boarders, and the cook, all suffering great distress at the epigastrium, active and frequent vomiting, a sense of burning and con-

striction in the stomach and œsophagus, great prostration, a metallic taste in the mouth, and irregular griping pains in the abdomen. The young lady and one of the young men had nervous twitchings and slight cramps in the muscles of the extremities. On inquiring I learned that the family had taken supper only about half an hour previous, and that all five of these persons began suddenly to be sick within ten or fifteen minutes after eating. Further inquiry developed the fact that some hot muffins had been prepared for supper, of which the five sick persons had eaten, but no others. This led to an immediate examination of the soda and cream of tartar which had been used in making the muffins. Concerning the first I could discover nothing wrong, but the second was evidently not cream of tartar, but a white powder, slowly soluble, distinctly metallic in taste, and very heavy. From the prompt and thorough vomiting in all the cases, I was suspicious that the poison was tartrate of antimony and potassa, and yet the taste and solubility both, differed from that article. A specimen was immediately sent to Prof. Mahla for chemical analysis, and within an hour he returned a message, saying, that the substance sent him, and which had been used as cream of tartar, was unmixt arsenious acid. Accompanying the message was a glass tube with the arsenic reduced to a metallic state, which is here for the inspection of the Society. Though then uncertain as to the nature of the poison taken, I found within a few minutes that all the sick ones had thoroughly evacuated their stomachs by repeated free vomiting, so much so that I was certain nothing could be gained by further evacuants, either by emetics or the stomach-pump. Neither did I believe there was anything left in the stomach that could be neutralized by chemical agents. On the contrary, the symptoms were already those of incipient gastritis with great prostration, and burning pain in the epigastrium. In one case the pain extended to the bowels, and was accompanied by one copious watery evacuation. Hence, I directed warmth to the extremities, sinapisms to the epigastrium, and the sixth of a grain of sulph. morphia, every half-hour, until vomiting ceased, and the patients were inclined to sleep

Their thirst was appeased by pieces of ice which they were allowed to swallow instead of drink. Under this treatment all had been much relieved, both from the vomiting and distress, before midnight, except the young lady. She continued in great distress in the abdomen, with frequent vomiting, a small and frequent pulse, cold extremities, a pallid countenance, and frequent spells of faintness, until 4 o'clock in the morning, when she fell asleep and rested quietly about two hours. She continued to have faintness or sinking spells whenever moved, and occasional vomiting all the subsequent day. The other patients were entirely comfortable so long as they remained at rest. But any attempt to exercise would cause sickness of the stomach, and great muscular weakness. They were all kept quiet for two or three days, allowed only a very bland and simple diet, and all rapidly recovered. In endeavoring to trace the origin of the arsenic, Mrs. P. gave the following statement:—Some three or four weeks previously, a new cook had been engaged for service in the family. Soon after she came, she found fault with the quality of the cream of tartar, which had been procured of their groceryman, and insisted that some should be obtained from a drug store. Accordingly the driver of the groceryman's wagon, the next time he came to deliver packages and receive orders, was requested to procure for them two or three pounds of cream of tartar at some drug store. He pretended to do so, and at his next visit delivered a package, duly labeled, cream of tartar, with the name of some drug store accompanying it. About this time the cook was discharged, and the package was laid aside, unopened,—where it remained until the morning of the 8th inst. In the meantime, the previous supply having been exhausted, Mrs. P. on that morning, opened the package, emptied it into the usual place for cream of tartar, and threw the paper on which the label was pasted, into the fire. She says she is certain that the package was labeled in large and plain letters, "cream of tartar," and she *thinks* the label contained also the name of a drug store, but she cannot remember what store. In the meantime, the young man who took the order and brought the package, has changed his place of

employment, and we have not been able to trace it beyond what is indicated in the above statement. It would appear that somebody, dealing in drugs, had been so exceedingly careless as to put up arsenious acid by the pound, in mistake for one of the most common articles in domestic use. Is it possible that any druggist in Chicago, is so careless as to keep large quantities of arsenic in any place where it could possibly be put up in the manner indicated by the above statement? If so, it is high time they were looked after.

DEWITT COUNTY MEDICAL SOCIETY.

This Society met in Odd Fellows Hall, Marion, July 2, 1861; the President, Dr. Madden, in the chair. The meeting was opened with prayer by Rev. M. Richards, after which the minutes of the previous meeting were read and approved.

Drs. D. W. Edmiston, R. T. Richards and B. K. Shurtleff made application for membership. The censors examined the applicants, reported favorable to, and recommended, their election. On motion of Dr. Lewis the report was received and the candidates unanimously elected members of the society. Society adjourned to meet at 2 o'clock, p. m.

AFTERNOON SESSION.—Dr. Tyler reported an interesting case of what was called pneumonia, by a so-called eclectic doctor of Wapella. The disease, however, proved to be an affection of the throat. The case proved fatal, probably from the error in diagnosis. Dr. Tyler also presented an interesting case of cardiac affection, which was examined by the members of the Society. The case elicited a lengthy discussion, in which all the members present participated.

Diphtheria, the subject for general discussion was taken up, but for the want of time was cut short. Dr. Wright gave notice that he would read a paper on diphtheria, at the next meeting of the society.

Drs. Edmiston and Adams, the regular essayists, were not present. Dr. T. W. Davis was also expected to read a paper,

but did not. He was excused. Drs. Edmiston and Adams were continued. Dr. Richards was also appointed to read an essay at the next meeting.

On motion, the thanks of the society were tendered to the Odd Fellows, for the use of their hall. On motion, the thanks of the society were tendered to Dr. Tyler and lady, for the excellent dinner gotten up, at their expense for the society. On motion, the proceedings of this meeting were ordered to be published in the *Central Transcript* and the Chicago medical journals.

On motion, the society adjourned to meet in Mount Pleasant the first Tuesday in October next, at 10 o'clock, a. m.

JOHN WRIGHT, *Secretary, pro tem.*

Selections.

ARSENIATE OF SODA IN SCROFULA.

By DR. BOUCHUT.

From Braithwaite's Retrospect.

The manifestations of the scrofulous diathesis are all exceedingly inveterate, and the treatment directed for their cure is only too often unsuccessful. All forms of scrofula, however, are not equally obstinate. The tertiary forms, which appear as tuberculosis, are generally incurable; of the other forms, whether primary or secondary, those which affect the bones are especially tenacious and of long duration; and, in truth, it is only over the mucous, glandular, and cutaneous manifestations of scrofula that therapeutics can exert any decided power. The author has used in turn all the medicines usually reputed anti-scrofulous: iodine, mercury, iron, baryta, bromine, extract of walnut leaves, cod-oil, arsenic, etc.; but, of all these agents, the arseniate of soda has appeared to him to be, under the circumstances which he describes, the most energetic and the most efficacious. In suitable doses, arsenic is one of the best *tonics* and *corroborants* we possess; it is only in too large doses, or when its use is too long continued, that it deserves to figure as an *alterative*. As a tonic, it is an admirable succedaneum of iron, quinine, and cod-liver oil; and is of great service in the majority of organic and nervous cachexiæ. In the scrofulous cachexia it is an ex-

cellent remedy; and under its influence children ordinarily regain their appetite, strength, and colour. In such cases there is amelioration only; but the cases where it cures are those in which the diathesis has not yet produced a cachectic condition, and where the local manifestations are superficial and confined to the skin, the mucous membrane, and suppurated lymphatic glands. Beyond these, in tuberculosis and the diseases of bones, it is only a good palliative. But, although thus limited, the therapeutic effects have considerable importance. It is no slight matter to be able to abridge the duration of a coryza, an ophthalmia, or the suppuration of glands, cutaneous ulcers, otorrhœas, leucorrhœas, etc., which depend upon the scrofulous constitution. The author possesses a number of facts relating to such cases, as well as to scrofulous perforation of the palate, seputed syphilitic, suppurating cervical glands (formerly called *verrouelles*), etc. The result in all of them was the same; a rapid cicatrization of the sores was always observed. The following are some examples:

Obs. I. A female child, *aged* 10, entered the Hospital Ste. Eugénie on 3d June, 1858; born of scrofulous parents; pale, thin, and weak, with an open scrofulous sore under the chin, discharging an abundant suppuration; below the angle of the jaw, other enlarged glands, not suppurated; appetite and digestion natural. Arseniate of soda was prescribed in increasing doses, from 5, 10, 15, to 20 milligrammes (1-14 to 1-4th grain) in a julep. Taken from July to December, the medicine produced no disturbance in the digestive organs. On October 15th, the child was completely cured, and was dismissed on December 27th. The tumors of the neck had disappeared, and there remained a solid cicatrix of good appearance under the chin.

Obs. II. Girl of 13; two large scrofulous ulcers in the neck, with abundant suppuration, and the skin undermined. Arsenate of soda in increasing doses. Cure in three months.

Obs. III. A girl of 10, suffering from osteitis of the phalanges of the big toe, onyxia, and suppuration of the matrix of the nail; treated with arseniate of soda internally, and foot-baths of chlorate of potash. In three months the wound had completely healed, although there still remained some swelling of the toe, and the skin was red and tender. The child had colour, had a keen appetite, and became stout and plump.

The fourth case, a girl of 11, affected with lichen, and presenting numerous glandular enlargements and fistulous ulcers under the jaws, had a chronic abscess of the chest, which had been punctured and injected with iodine. She had been treat-

ed with cod-liver oil for three months, but had lost flesh, and the abscesses continued to discharge an abundant suppuration of an unhealthy character. On May 15th, the arseniate of soda was commenced. On July 15th, the abscesses were almost cured; and the child had a fresh healthy colour, and had gained flesh. On September 1st, the abscesses on the neck and chest were completely closed. The cure continuing, the child was dismissed, November 8th. Since that date all the scrofulous children presenting superficial cutaneous affections in M. Bouchut's wards have been treated in the same way, and the result has always been favourable.

In the case of a girl, aged 11, affected with swelled submaxillary glands, and large scrofulous ulcers extending from the ear downwards under the chin on both sides, the improvement began after a fortnight's treatment with the arseniate of soda, and she left the hospital cured in four months.

Another girl, the subject of *tinea tonsurans* and osteitis of the big toe had been ill for a year, and entered the hospital, July 8th, 1858. The general health was pretty good; with the exception of some paleness, there was no functional disorder. Epilation, lotions of corrosive sublimate, applied to the head; arseniate of soda internally; sulphurous baths. In November, 1859, the sore of the foot had completely cicatrized; but the *tinea tonsurans* had spread. The epilation was continued, and she was dismissed cured on the 15th October, 1860.

In all these cases the arseniate of soda was begun in doses of 5 milligrammes (1-14th grain), and increased at the end of a few days to 10, 15 and finally 20 milligrammes (1-4 grain.) Beyond that dose, symptoms of gastralgia, vomiting and diarrhœa are apt to come on, and should be guarded against. It may be given in gum julip, in Bordeaux wine, in syrup of cinchona, or syrup of gum. The following formula may be employed, and the medicine left in charge of families, for use during several weeks: Syrup of cinchona, 300 grammes (3 x)*; arseniate of soda, 5 centigrammes (gr. j.); one or two teaspoonfuls each day; each teaspoonful containing about 1 milligramme (1-70th grain) of the arseniate of soda. In this dose, and with the precaution of increasing it gradually, the arseniate of soda presents no danger. Its effects are, to increase the appetite and produce a richer sanguification, manifested by a ruddy colour of the skin, muscular energy, and an unmistakable appearance of health. Such results, says the author, are not to be despised in the case of scrofulous subjects, pale, emaciated, and exhausted by long suppurations and mucous discharges; and it is on

* This should, evidently, be $\bar{3}$'s, instead of 3's.

these grounds that he recommends the arseniate. He does not propose it, however, as a specific, but only as a tonic or corroborant, which stimulates the appetite and imparts increased activity to the molecular nutrition of the tissues. In scrofulous constitutions, it is the slowness of the movements of nutrition, and of the exchange of the circulating materials, which gives the diseases their peculiar character. In this respect the arsenical medication is useful, as perhaps the cod-liver oil is also, by stimulating nutrition; and the results obtained should induce practitioners to have recourse to it. It must be noted, however, that the arseniate of soda is suitable only in scrofulous diseases of the cutaneous, mucous, and glandular textures. Its efficacy is doubtful in diseases of the bones; and it is only a palliative in the case of tertiary scrofula, that is in tuberculization.—*Bull. Gen. de Therapeutique*.—*Edinburgh Medical Journal*, March, 1861, p. 830.

ANÆSTHETICS—THEORY OF THEIR ACTION.

From the Boston Medical and Surgical Journal.

The following letter is of interest at the present time, in connection with the new anæsthetic announced in our last.

MESSRS EDITORS:—Substitutes for ether, as anæsthetic agents, are frequently proposed, and some of them have been practically introduced, with some success. None, however, surpass ether in the two most important qualities of efficiency and safety, ether is far preferable to any and all anæsthetics thus far discovered.

It may prove interesting to the profession, to inquire into the mode of action of the class of bodies known to produce anæsthesia, when inhaled. This subject has been very carefully studied by me from the outset of anæsthetic practice, and with a view to the discovery of some general law.

The first impression among physicians was that the anæsthetic state was merely one of temporary intoxication.

Secondly, the theory of high excitement, followed by corresponding collapse, accounted for the phenomena. Dr. John C. Warren took at one time, this view of the matter, and spoke of etherization as “devouring the sensibility by high stimulation, and hence a corresponding nervous depression” which was the anæsthetic state. Others have supposed that etherization produced a partial asphyxia; hence the expression early made use of by some of our surgeons, that there was “little difference between hanging, drowning and etherizing.”

It has also been alleged that ether, absorbed into the sanguineous circulation, affects directly the nervous filaments, either at their origin in the medulla spinalis, or in their distributed extremities, or in both these parts. In support of this allegation, it was cited that the direct application of ether to an exposed nerve *destroyed* its sensibility. By the italization of that word, I call attention to the difference between the anæsthetic state of temporary suspension of sensibility, and the destruction of it; for the nerve acted upon directly by ether, does not recover its powers, but is permanently paralyzed.

Another state of the circulation has been observed, which it was hoped would give some clue to the action of anæsthetic agents,—namely: that of slackening, and even temporarily wholly suspending the circulation of blood in the capillary or extreme vessels. It was supposed that by thus cutting off a supply of circulating blood stimulus to the sentient extremities of the nerves, sensation was temporarily suspended. The commencement of insensibility in the remote extremities, the feet, legs and hands, seems to indicate that sensation was suspended at those points first.

The French physiologists, Flourens and Longet, are of opinion that the effects of anæsthetics commence, and primarily act on the great nervous centres, the medulla spinalis and medulla oblongata; and that if the full effect reaches the bulb of the medulla, death will take place from total suspension of all the vital functions of the body.

A more chemical explanation of the action of anæsthetics, is that they all abstract oxygen from the blood, and hence reduce its peculiar stimulating powers on the nerves, and that some of them leave poisonous products, while those left by others are innocuous. Thus, as we have formerly stated, chloroform or the ter-chloride of formyl abstracts three equivalents of oxygen, three equivalents of chlorine.

Bi-sulphide of carbon, one of the most terrible anæsthetics ever proposed, the dangerous effects of which I have experienced, and have warned the public about seasonably, acts as a powerful de-oxidizer of the blood, both the carbon and the sulphur abstracting oxygen, the first producing carbonic oxide or carbonic acid, while the latter forms sulphurous acid. Carbonic oxide and sulphurous acid are poisons, as is also chlorine, before mentioned.

All the acidiferous ethers when decomposed, as they are, in the organs of respiration and circulation, leave their acids in combination with the blood; hence, nitrous and nitric ether are known to destroy life, and hydro-chloric ether and chloride

of hydro-carbon undoubtedly act in the same way, and injure the quality of the blood. Acetic ether is not objectionable, since an organic acid is easily decomposed in the processes of respiration, and is removed in the form of carbonic acid and vapor of water, usual products of normal respiration.

Sulphuric ether, as it is improperly called, since it does not contain any sulphuric acid, is a pure hydro-carbon, with one equivalent of oxygen=C, H, O. When decomposed by the action of the blood, it may be converted into aldehyde, acetic acid, and lastly into carbonic acid and water, no fixed product remaining in the blood, but all able to be removed by respiratory action. The odor of the breath of a patient who has been etherized, shows that there are exhaled the oxydized products of the ether, and it is known by analysis that a much larger proportion of carbonic acid is exhaled from the lungs during the etherized state, than in the normal condition of the system.

Without finally adopting any theory of the chemical and physiological action of anæsthetics generally, we may, perhaps, be allowed to call attention to a general law, namely: that all very volatile hydro-carbons act as anæsthetics like the others. Thus, it has long been known that benzine, benzole, oil of turpentine, naphtha, when inhaled, will all produce the anæsthetic state. The highly volatile oils of coal tar, likewise, possess anæsthetic properties, and one which has recently been tested in surgical practice, known as keroselene, a highly volatile naphtha, seems to be the least offensive of them. It is evidently a very pure hydro-carbon, analogous to highly rectified naphtha, and does not contain any oxygen, as is proved by its property of preserving potassium from oxidation, when it is immersed in it. The first samples of keroselene which I tested two years ago, proved quite irritating to the organs of respiration, but I have learned recently that a purer and more volatile product has been made at Mr. Downer's works, though I have had no opportunity of testing it practically.

It is obvious that there are two or more volatile oils in the keroselene of commerce, and they are separable by graduated distillation. Some care, therefore, is requisite in the preparation of an uniform product; one which may be properly the subject of experiments by inhalation. I would observe that no analysis has yet been made of the keroselene oils.

CHARLES T. JACKSON, M. D.

FOREIGN ITEMS.—Dr. ELSBERG gives us, in his Summary of Foreign Medical Literature, for July, (*Am. Med. Monthly*), a resumé of Sansom's Experiments on the Action of Chloroform on the Blood.

According to the author, the effect of the mingling of liquid chloroform with the blood is an almost total solution of the red corpuscles. Under the microscope, a nearly homogeneous yellow-tinted field presents itself, with here and there only the faint outline of a red blood-corpuscle. The white corpuscles, on the other hand, appear to have been uninfluenced. To trace the most subtle effect of feebler influences, M. Sansom used in these investigations frog's blood. Placing a little undiluted on a glass slide, he exposed it for only about two seconds to the vapor proceeding from an open bottle of chloroform at the ordinary temperature of the air; having covered the blood with a slip of thin glass, he examined it under the microscope, and, as the result of his examination, he believes the progressive changes on the blood-corpuscle to be the following:

- (1.) Corrugation of cell-wall; alteration of shape; coherence.
- (2.) Solution of cell-wall.
- (3.) Coalescence of cell contents.

To observe the effect of chloroformization of circulating blood, he exposed the web of a frog's foot on a frog-plate under the microscope, and then sprinkled a few drops of chloroform upon the damp cloth in which the frog was wrapped.

The first change noticed in the circulation was an increase of its rapidity. In about twenty seconds the capillaries had dilated to nearly twice their normal size. Then the flow became slow, the corpuscles manifested the tendency to aggregate, and, in some instances, to assume the shape which chloroform promoted in them out of the body. The cohering blood-corpuscles toiled along the capillaries in an interrupted current. More chloroform being given, the tendency to cohere became greater, the current slower. Ultimately, stasis of the blood occurred, (first in the larger vessels,) and death.

The most noticeable changes induced by chloroform on the circulating system are therefore:

- (1.) Acceleration of the flow;
- (2.) Dilatation of the capillaries and the blood-vessels;
- (3.) Alteration in shape of blood-discs and tendency to cohere.
- (4.) Stasis of the blood.

These facts have, I believe, a great influence on the theory of anæsthesia. That "narcotism is suspended oxygenation" is a doctrine receiving every day greater confirmation. I be-

lieve that the action of chloroform is directly upon the blood-corpuscle; that thereby its capability of receiving oxygen is impaired, and its faculty of stimulating the various functions of life subdued; in other words, that the phenomena of chloroformization are due, not to the agency of a circulating poison, but to the influence of an altered blood.

THE LAUDABLE object and example of Dr. Gairdner in publishing the statistics of the consumption of alcoholic stimulants by the hospital patients under his charge, should certainly stimulate all hospital physicians to prepare accurate records of the actual expenditure of alcoholic stimulants. In how many various ways this would lead to extremely valuable results, scientifically, morally, economically, as well as therapeutically, we need not here point out. We quote table of

Average Daily Consumption of Alcoholic Stimulants, per Patient, during Five Successive Years, in the Royal Infirmary, Wards 4, 15, and 16.

	1856.	1857.	1858.	1859.	1860.
GENERAL WARD—Males—					
Wines, (ounces),.....	0.158	0.465	0.710	0.928	0.739
Spirits, (ounces),.....	0.056	0.312	0.287	0.184	0.454
Malt Liquors, (pints),.....	0.039	0.040	0.025	0.053	0.058
GENERAL WARD—Females—					
Wines, (ounces),.....	0.446	0.534	0.799	1.498	1.200
Spirits, (ounces),.....	0.295	0.312	0.223	0.164	0.510
Malt Liquors, (pints),.....	0.064	0.069	0.048	0.061	0.048
FEVER WARD—Females—					
Wines, (ounces),.....	0.715	1.256	1.734	1.725	1.140
Spirits, (ounces),.....	0.069	0.083	0.346	0.052	0.135
Malt Liquors, (pints),.....	0.023	0.029	0.135	0.069	0.027

As to the results, Dr. G. avers they are in two particulars most unexpectedly opposed to all his previous impressions. While he fully believed that the use of alcoholic stimulants in his hands had been at least stationary, if not decreasing, the table shows that there has been a nearly uniform increase. Again, it appears that among the women in the general ward the consumption of wine, during the entire period of five years, is decidedly greater than in the corresponding male ward; that of spirits but little less, and that of malt liquors at least as much. As the two wards are very much alike as regards the class of cases admitted, and have been during very nearly the whole period subject to exactly the same adminis-

tration, it is hardly possible that this fact can be accounted for otherwise than by the apparent need for the exhibition of stimulants, and the demand for them having been actually greater among the women than among the men. Dr. G. adds: "I am quite certain, at least, that there is nothing in the personal convictions of myself or my assistants, to account for the fact of so liberal a comparative expenditure of wine on the female side, inasmuch as all my own prejudices and those of most other people, were assuredly in the opposite direction, viz., to the effect that women ought to require, and in the better class of society do require, a less quantity of alcoholic stimulation than men, when suffering under disease, and especially acute disease."

Many other points of Dr. Gs'. article we would willingly quote, but hardly can do them justice. Dr. G. by no means goes the entire length of the late lamented Dr. Todd, and gives stimulants, "if at all, only in very moderate quantities along with the food, and in general, as an aid to the digestion of food; the only exception being in the case of persons largely and habitually dependent upon stimulants from old and formed habits, and in a comparatively small number of acute cases for a very few days, sometimes only a few hours, to help the system over a dangerous crisis, or to co-operate with other needful remedies, such as antimonials, in pulmonary inflammation."

COFFEE AS A REMEDY FOR WHOOPING COUGH.—In Dr. George D. Gibbs' work on whooping cough, published in London in 1854, he quotes Dr. Jules Guyot as authority for recommending strong coffee as a specific for the cure of this disease. We [*Boston Med. and Sur. Jour.*] have tried it in several instances with marked effect. In one case, the patient being a little girl six years of age, there was not a single "whoop" after she began to take it. She took a tablespoonful and a half of very strong coffee, sweetened, but without milk, three times daily. A younger child, in the same family, was well of the disease in three weeks; no other remedy was used in either case. In another instance, in which we have recently tried it, the same happy result followed, the "whooping" symptom being at once arrested, and the complaint coming to a speedy termination. It is difficult to fix the dose definitely, and this may account for the unsatisfactory result in one or two instances we have heard of, in which a small dose was given. Another important consideration which should not be lost sight of, is, that three-quarters, probably, of what is drank for coffee, is made from nothing but peas or beans. The only sure method

is to get the coffee berry itself, and have it burnt under one's own eye. The decoction should then be given as strong as possible, and in a quantity only short of enough to cause the unpleasantly stimulating effects of this beverage. Children take it very readily. The last patient referred to above, was only eighteen months old, and took, once a day, half a cup of coffee thus prepared, without the least noticeable injurious effect. As whooping cough is rather prevalent at the present time, we have thought it worth while to remind our readers of so simple and pleasant a remedy for it.

DOLBEAN reports two cases of prolapsed bowel, one in a girl three years old, the other in a boy five years old, both of which were cured by the subcutaneous injection of sulphate of strychnia, 30 centigrammes to 30 grammes of water. The canula was introduced one centimetre to the right of the anus to the depth of 0.5 centimetre, and 10-11 drops of the solution injected.

Book Notices.

A TREATISE ON THE PRACTICE OF MEDICINE.—By EDWIN R. MAXON, M. D., formerly Lecturer on Institutes and Practice of Medicine in the Geneva Medical College, Philadelphia: LINDSAY & BLACKISTON. 1881. 8vo. pp. 795.

It is to be regretted that his "exciting and extensive practice," during two years of which ex-Prof. Maxon wrote his *Treatise*, was not of so engrossing a nature as to preclude the, no doubt worthy, practitioner from essaying the *role* of author. That it was engrossing enough to prevent the writer fulfilling his intentions, a perusal amply satisfies us; for it is neither "a valuable and interesting work for the student," nor "a reference for practitioners of medicine generally," as the author sets forth in the preface. But, surely, no pressure of practice could be so great as to crowd out of his mind, who aspires to rank with Watson, Wood and Eberle, all observance of Lindley Murray, all semblance of regard for the genius, construction, and resources of the language in which he writes. The peculiar, offensive character of comparisons is well known; and yet such an effort as this, cannot fail to provoke them, when we remember the graceful ease of eloquence, the manly,

sensible modesty, the depth of research, and the wealth of wisdom, skill and learning which conspire to make WATSON'S *Practice* the model text-book for the student, the fascinating companion of the practitioner.

Dogmatic in tone, obscure and shallow in treatment, inelegant and monotonous in style, in this first, we cannot look forward with much zest to the second, edition of the *Treatise*, which its sanguine author already anticipates; but charitably consigning it to a merciful repose in the dusty fastnesses of our upper shelves, counsel its progenitor to devote himself to the duties and demands of his practice, as one to whom the *mare nigrum* offers only an inglorious grave, instead of bearing him, on its inky waves, to the renown and glory of successful authorship.

OUR EXCHANGES.—With the exception of some half-dozen of the leading ones, the thirty or forty-odd periodicals which were wont to flood our sanctum, month after month, are now *non est*,—whether practically or figuratively declared “contraband of war,” we know not; nor whether the fault be due to the postal arrangements,—or derangements. The sterling *Lancet*, and the portly *Braithwaite*, the dignified *American Journal* and the scholarly *Medico-Chirurgical Review*; with the elegant *American Medical Monthly*, and the *Berkshire*, of the quarterlies and monthlies for July, are received, as also the more sprightly weeklies of Boston, New York and Philadelphia. But our coteremporaries of Cleveland, Columbus, Cincinnati, New Lebanon, St. Louis, Louisville, and those not mentioned in the above list, of the leading eastern cities, have, as yet, at the close of the month, failed to put in an appearance. Of course, those of our unfortunate Southern brethren of Secessia, have sadly-weighty reasons for their absence.

BRAITHWAITE'S *Retrospect*, Part XLIII, with 352 solid pages, fully maintains its well-earned reputation; and the physician, unable to subscribe for the leading foreign periodicals, can make no more economical investment, than by subscribing for the *Retrospect*,—that is, if he would put himself *en rapport* with the improvements and progress of his profession,

in its every branch. The diseases of women, having given rise, of late, to, perhaps, more attention than has been devoted to any other special subject, the editor, peculiarly fitted for the task, by his position as lecturer on *Obstetric Medicine* in the Leeds School, makes a special report and commentary on the valuable and interesting papers thus drawn forth during the past six months; and this, it is proposed to continue from time to time. This number also contains the index for the volume, and the usual useful synopsis of the most practical articles, showing, briefly and comprehensively, the most important indications of treatment, published by different writers within the last half year.

W. A. Townsend, 39 Walker street, New York, is the American publisher; and W. B. Keen, 148 Lake street, Chicago, the Illinois agent.

IN ADDITION to its strictly professional matter, the *Medico-Chirurgical* presents the claims of the author of *Don Quixote* to the title of *Medicinæ Doctor*, as advanced by late French and Spanish writers; some of whom not only do not hesitate to assign Cervantes' master-piece a high rank as a treatise on insanity, but for Cervantes, himself, a priority to Pinel in the moral treatment of this disease, and to Broussais in recognizing the intimate connections between the digestive apparatus and its function and the general health, physical and mental. Despite the reviewer, however, we doubt if Sydenham recognized this claim when he recommended the *Quixote* as the best book for a medical student to read.

The editorial department of the *Medico-Chirurgical* is a field of the poetry and romance of our profession, most fascinating to the imaginative and enthusiastic student of its various phases.

THE LONDON *Lancet*, for July, is as heavily freighted as usual, with the rich fruits of the minds of Great Britain's most eminent men. The first dozen pages are devoted to clinical matter,—Holmes Coote on Chronic Diseases of Bones and Joints, Chambers' first Drill for Auscultation (which we shall give in our next), and Gairdners' Observations in the Royal

Infirmary, Edinburgh. Tilt, Skey, Wilson, and others, furnish interesting original papers; and the remainder of the table of contents presents a perfect *embarras des richesses* to one seeking to select its most valuable features. The Decennial Index, from '51 to '60, accompanies this number.

James Herald, 24 Ann street, New York, is the American publisher; Norris & Hyde, Madison street, Chicago, Illinois agents.

THE MOST important feature of the current number of Dr. HAY's *Journal of Medical Sciences*, is the valuable paper of Dr. W. W. MORLAND,—“*The Morbid Effects of the Retention in the Blood of the Elements of the Urinary Secretion*,”—the Fisk Fund Prize Essay. The review and bibliographical departments are full and interesting; and the summaries of foreign and domestic intelligence, as usual, comprehensive.

OF OUR other exchanges, our readers are able to judge for themselves, from the numerous excerpts we make from time to time; though occasionally, as in the present number, a pressure of original matter abridges the space usually occupied by selections.

Editorial.

CLINICAL INSTRUCTION AND MEDICAL SCHOOLS.—In a late number of the *American Medical Times*, the editor made some judicious remarks on the importance of a close connection between the Medical Colleges and Hospital Clinical instruction. In the article, he alludes to the Long-Island College Hospital, and the New York Medical College and Charity Hospital, as institutions presenting good examples in this respect. We wish to remind the editor of the *Times* that the two institutions just named, are not the first to set the example referred to. Fully six years before either of them had an existence, direct Hospital Clinical instruction, both in Practical Medicine and Surgery, was established as a part of the regular annual course in the Rush Medical College of this city.

The courses on Clinical Surgery were given by Professors Brainard, Herrick and Freer; those on Practical Medicine, by the senior editor of the EXAMINER. They were not mere collateral advantages, which the student might enjoy or not at his option, but the clinics were given *daily*, and every candidate for graduation was required to attend them as regularly as any part of the College course. In the establishment of the Medical Department of the Lind University in this city, two years since, Hospital Clinical instruction was made a still more prominent part of the curriculum of study. Regular Professorships of Clinical Medicine and Clinical Surgery were established, and *daily* clinical instruction at the bedside in the wards of the Mercy Hospital, was made a necessary part of the College course. And in addition to the daily clinic in the Mercy Hospital, the students of this University now have access to two clinics per week in the Marine Hospital, and one Surgical and one Medical clinic each week at the Chicago City Dispensary. It is true that the College and the Hospitals are not under the same roof, but they are only a few blocks apart, and the arrangement of all the clinical advantages is such as to constitute a prominent and harmonious part of the College course. Nor is the Clinical instruction in connection with the Lind University, limited to the ordinary winter term of the colleges, but it is continued to good classes throughout the whole year, except the month of August.

In no city in the United States, has Clinical instruction been made a more prominent or necessary part of the education of the medical student, than in Chicago, from the autumn of 1850 to the present time.

CHOLERA INFANTUM—SUMMER COMPLAINTS AND TEETHING.—At the present season of the year we can call the attention of our readers to nothing more important, than the following paragraphs taken from the introductory lecture of Dr. Jacobi, of New York, on the subject of "Dentition and its Derangements."

"You know that among the public at large, even among the educated portion of the community, *teething* is regarded as one of the two scape-goats of all diseases of infantile age.

Teething and worms are among mothers, acknowledged as the universal and all-powerful sources of disease."

"A mother will bring you her child, thin, emaciated, and anæmic, with sunken eyes and the wrinkled physiognomy of old age, and tell you she is well aware the poor thing is suffering from teething, and that, therefore, nothing can be done to alleviate its sufferings. *She will never be convinced that the child is dying from her own neglect*; that she has allowed a slight catarrh of the intestines, perhaps, to degenerate into incurable follicular ulceration. * * * * Teething is thus considered the most efficient cause of most of the terrible diseases, which prove fatal to thousands of the rising generation. *I can assure you that the readiness to attribute all the diseases of infantile life to teething, has destroyed more human beings than many of the wars described in history.* For, though parents are so much impressed with the belief of the dangers of teething, still they never think of attempting to save the lives of their children by counteracting the supposed life-endangering power of a normal process."

Again he says: "And it would be fortunate if the prejudice were confined to the public. But unfortunately, it still lingers in the medical profession, and it is for this reason that I have dwelt upon it thus lengthily. Nothing is more common than to hear doctors, young and old, in cases of infantile disease, diagnosticate *teething*, after mother and nurse had done so before, and nothing is more frequent than to be told that the death of a child was the consequence of dentition. Consider, for a moment, the absurdity of the conclusion, that a normal, physiological process is fatal to the existence of a living being. Who has ever ventured to assert that menstruation, pregnancy, or the climacteric years are the direct causes of death? *It is equally absurd to assert it of dentition*; and yet such statements are daily made by physicians."

The above extracts from one of the most eminent and experienced physicians of New York, accord exactly with our own sentiments. We regard the idea that the *natural* growth of the teeth produces disease just as absurd, as it would be to attribute disease to the growth of the hair, the toe-nails, or

any other part of the body. And yet, as often as July and August comes, thousands of children, from three weeks to three years old, are attacked with various grades of gastric and intestinal irritation, which, in nine cases out of ten is attributed to "*teething*." Every day our office is thronged with these little innocent beings, emaciated, eyes sunken, skin wrinkled, and vital properties exhausted, from a profuse, watery diarrhœa and occasional vomiting, of from one to three weeks' duration. When the mother is asked why she neglected the child so long, her prompt reply is, "O! the child is *teething*." If we protest against the absurdity of the excuse, she often says "Doctor A. or B. told her the child was teething, and it would not do to stop the diarrhœa." And we are fully satisfied that more than *one hundred* children are sacrificed in this city alone, every summer, to the one single absurd error that because a child is *teething*, a diarrhœa need not be interfered with. Not only is the notion, that a strictly *normal* process like the growth of the teeth is the cause of disease, absurd, as represented by Dr. Jacobi; but, if it were true, instead of furnishing an excuse for neglecting the little sufferers, it should cause every one of common sense, whether mother, nurse, or physician, to watch them all the more carefully during the period of such growth.

KEROSOLENE—LETTER FROM DR. DICKINSON.

TO THE EDITORS OF THE CHICAGO MEDICAL EXAMINER.

GENTLEMEN:—At your request, I herewith communicate all the facts in my possession respecting a new anæsthetic, called Kerosolene,—some observations in relation to which, together with a sample, I had the pleasure of presenting to the Chicago Medical Society. Circumstances have prevented me from making many experiments with this interesting agent. I, however, presented a specimen of it to Dr. Gustave Weber, of Cleveland, and hoped to have his experience to embody in this communication: this must now be reserved till a future time. I have, at this time, only desired to bring it to the

knowledge of the profession, by which its properties will be fully ascertained and appropriated accordingly.

WM. DICKINSON.

CHICAGO, ILL., July 20, 1861.

During the distillation of a peculiar kind of bituminous coal, in the manufacture of kerosene, other products are obtained, comprising a series most interesting in their physical properties, and not less so in their chemical reactions. These, almost endless in variety, have for many months engaged the attention of chemists, and especially of Dr. Hayes, State Assayer of Massachusetts.

In a casual conversation with Joshua Merrill, Esq., Superintendent of Downer's Kerosene Oil Works, Boston, Massachusetts, he brought to my notice this article—kerosolene—which, coming over early in the process, is condensed at a low temperature. This was, however, first discovered at similar works in New York city, formerly under the supervision of Mr. Atwood, chemist, and to it the name Kerosolene was given, not claiming for it chemical propriety, but, at the time, given for the lack of a better.

It has been ascertained to be a pure hydro-carbon, in which the carbon is slightly in excess, being highly inflammable, burning with a bright flame and with a little smoke. It is perfectly limpid and colorless as water, more volatile and of less specific gravity than ether; probably about 0.650, ether being 0.750. Almost tasteless, except for an instant when first applied to the tongue; it boils at about the temperature of the body; when favorably exposed, its evaporation is so rapid that water placed in a watch glass, in its midst, immediately freezes. Its odor bears a faint resemblance to kerosene and chloroform, but without the pungency of the former, and destitute of the irritating qualities of chloroform and ether upon the mucous membrane of the air passages. It forms a perfect solution with both, and also with water. It is a very powerful solvent, and for a long time has been used by the workmen for the removal of tar, grease, etc., from their clothes, no trace of its presence being left after evaporation.

The discovery of its anæsthetic qualities was the result of accident. Two men were directed to enter and cleanse a receiver, from which its contents, kerosene, had been drawn. Upon entering it from the top, they were at once immersed in an atmosphere of this vapor, its specific gravity being like that of carbonic acid, greater than that of air. Mr. Atwood says: "It is known that one of the men was subjected to this concentrated vapor for three-quarters of an hour, and the other for a shorter period. When removed, both being completely narcotized, and permitted to respire pure air, they speedily recovered consciousness and the exercise of all their faculties, without suffering at the time or subsequently, the least inconvenience from the involuntary anæsthesia, of which they had been the first subjects." A similar accident, under like circumstances, occurred under the observation of Mr. Merrill. While recovering after being exposed to the free access of air he exclaimed, "What heavenly music! what delicious music!" These all unite in their testimony that no headache, vertigo, nausea or other disagreeable sensation was experienced, but were all able in a few moments to resume their respective duties, as though they had not made, unwittingly, perhaps a very valuable contribution to science.

Flies subjected to the vapor are quickly narcotized, but generally soon-recover. In some instances after apparent recovery, they seem to die from its effects. So far as its effects upon mice have been observed, it has produced death, either immediately or at variable times after apparent recovery. This effect must not be arrayed specially against the safety of kerosolene, for both ether and chloroform often produce death upon the lower animals; and from the effects of the latter, patients have seemed to die, even after complete and safe recovery from the anæsthesia produced by it.

Here now, without question, was a new anæsthetic,—its peculiar properties and powers, undeveloped and unknown, a few inspirations of its vapor are sufficient to convince one that its power exceeds that of ether, and besides that it is more agreeable and much less irritating to the respiratory organs, I thought, if brought to the knowledge of the profession, and

made the subject of judicious experiment, it might be found to possess more than mere kindred properties to ether and chloroform; perhaps to combine the power of the latter with the safety of the former. Accordingly, Mr. M. and self took a quantity of it to Dr. Cabot, one of the surgeons of Massachusetts General Hospital, and at the suggestion of Dr. Bowditch and assent of Mr. M., I introduced it to the Society for Medical Improvement, on the evening of 16th ult. Upon being presented by Dr. Bowditch, it elicited much interest, and was referred to the surgeons of the hospital and Dr. Bacon, professor of chemistry, for their investigation, experiment and report.

Dr. Bigelow, also one of the surgeons referred to, informed me, he was so firmly convinced of its innocency, that without further experiment, on the following day he caused it to be administered to himself by Dr. Hodges, with complete success in producing anæsthesia. The sensations he describes in the *Boston Medical and Surgical Journal** of the day following, as wholly agreeable, "leaving neither headache nor nausea, nor bad taste."

At the request of Dr. Andrews, of this city, I administered kerosolene to a lad about seven years, whom he was desirous of examining for suspected calculus. About one drachm of the liquid was applied to the surface of a folded handkerchief; a large admixture of pure air was thus allowed. Great caution was practiced in its administration, and the consequent phenomena carefully scrutinized. The inhalation was kindly borne, the vapor exciting neither apprehended suffocation nor even cough; but as consciousness declined, a general muscular rigor supervened, during which the respiration was suspended, and the face flushed, while the heart's action was increased both in frequency and force. A moment's removal of the handkerchief was followed by relaxation of the muscles. The inhalation was twice repeated with similar results. The pulse, at no instant, either flagged or intermitted; urine was voided involuntarily.

In the present state of our knowledge, ten days not yet having elapsed since its first administration to the human subject in

* *Vide* page 408—EXAMINER, for Dr. Bigelow's article.—R.

the person of Dr. Bigelow, we deemed it hazardous to persist in the use of kerosolene; it was therefore suspended, and the anæsthesia concluded by a mixture of ether and chloroform, of which the latter bore but a small proportion. The quantity of kerosolene employed, did not exceed one-half an ounce. Further experience may demonstrate that the rigor is but an innocent index of commencing anæsthesia, and has no value as a sign of danger; that it consequently can, with entire safety be disregarded; and also, that relaxation would follow upon a more complete state of anæsthesia, in the same manner as muscular action, or resistance during the administration of ether or chloroform, is an unequivocal indication to persist for the purpose of overcoming such action,—or it may be an indication to withhold its administration for a moment—the rigor having the same relation to the inhalation of kerosolene as suspended respiration to that of the other anæsthetics. Should it be ascertained that kerosolene, in its present state of manufacture, possesses positively noxious qualities, a process of purification may be adopted, which will entirely divest it of such properties.

Should experience award to it the power and safety alluded to above, its cheapness, in addition to other considerations, will strongly conspire to render it the favorite anæsthetic, since I have the assurance of Mr. Merrill that it can be furnished at one dollar a gallon.

THE NEW SPLINTS FOR HIP DISEASE.

TO THE EDITORS OF THE EXAMINER.

GENTLEMEN:—In the editorial department of the *Medical and Surgical Reporter*, Dr. O. C. Gibbs, of Frewsbury, N. Y., gives a notice of the three splints devised by Dr. Davis, Dr. Sayre, and myself, for the better treatment of morbus coxarius. In the course of his highly complimentary remarks, he inquires very naturally as follows:

“We do not see how he (Dr. Andrews) secures immobility

of the hip joint. Will the Professor tell us if he regards this as non-essential."

In reply to this I would state that immobility of the joint *after excision* is not desired, because the object sought is a ligamentous union of the cut extremity of the femur to the ilium. In cases not requiring excision, immobility would be desired, were it attainable without the confinement of the patient, but this is impossible. Neither Davis' nor Sayre's splints attain it, nor can any other which allows the patient to walk about freely. Slight motion of the joint when it is firmly extended is of but little consequence. When no splint is used, the patient at each step brings the whole weight of the body to press and grind on the inflamed head of the femur, hence the pain and the real mischief which result from attempts at walking in such instances, but if a good splint is applied, the head of the bone is kept drawn a little off from the acetabular surface, and the weight of the body does not rest upon it at all. Slight motion in such circumstances does little or no harm, as is evident from the fact that the patients no longer suffer from it. The great merit in the splints of Drs. Davis and Sayre is not in aiming at immobility, but in taking off effectually all pressure from the joint. Probably my splint allows a little more freedom to the limb than theirs, but I have yet seen no injury from it.

I think that my splint presents one advantage over the others, dependent upon the fact that it transmits the weight of the person directly to the ground. In Sayre's method the weight is transmitted from the lower end of the instrument, through adhesive straps, to the skin of the leg or thigh, and thence through the foot to the ground. Now, as the skin is elastic, it yields a little at each step, and relaxes the extension, and hence, in some cases it is difficult to tell whether a part of the weight is not still borne by the inflamed head of the femur. In my splint I place the patient in a standing posture, and extend the instrument until the heel, in stepping, no longer presses the bottom of the shoe. I fear that Dr. Sayre's recent improvement, in which he uses a shorter splint, and applies his adhesive straps to the integument of the thigh,

will be still more liable to the objection above mentioned from the elasticity and mobility of the skin.

Dr. Gibbs complains that my splint, being of Western origin, is overlooked at the East; but if there is any one to blame for that, it is probably myself. Having been occupied with my practice, I have neglected to take any measures to introduce it to the notice of the profession of that region. I have been called upon to see a great number of cases of hip disease, and merely devised this instrument for use among my own patients. Afterwards, I published an account of it in the EXAMINER of Chicago, but as I have taken no pains to bring it into notice further East, there are very few there who know of its existence.

Yours truly,

E. ANDREWS.

CHICAGO, July 24, 1861.

SURGEONS FOR THE ILLINOIS VOLUNTEERS.—The Board of Medical Examiners for this State, Prof. H. A. JOHNSON, M. D., President, resumed their sessions in this city on the 6th inst., at the rooms of the Indian Agency, in the Custom House building. Up to this date they have passed twenty-three *Surgeons*, as follows: Drs. W. Wagner, Geo. Coatsworth, H. Wardner, T. W. Winer, A. W. Heise, Jas. Bringham, C. Goodbrake, L. D. Kellogg, Wm. J. McKim, Henry Parker, Charles Storch, W. R. Burke, R. L. Metcalf, S. T. Trowbridge, W. M. Gray, R. G. Bogue, G. S. Lucas, L. Watson, S. C. Blake, S. M. Hamilton, S. W. Everett, Jas Roberts, and J W. Tuttle.

And twenty-five *Assistant Surgeons*, as follows: Drs. T. Babb, John Fetzer, F. K. Bailey, A. Blake, Carl Muntz. J. S. Hunt, S. C. Plummer, George H. Dewey, P. H. Bailhache, Sanford Bell, Chas. Davis, O. G. Hunt, D. Stahl, Jas. Hamilton, H. A. Buck, Edwin Gaylord, John B. Ensey, Jas. Farnum, E. Gulich, Benj. F. Stevenson, O. B. Ormsby, C. B. Tompkins, John M. Phipps, Wm. F. Cady, Theodore Bluthardt.

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Original Contributions.

ARTICLE I.

LECTURES ON MILITARY SURGERY:

DELIVERED DURING THE SUMMER COURSE OF THE MEDICAL
DEPARTMENT OF LIND UNIVERSITY.

By E. ANDREWS, A. M., M. D.,

PROF. OF SURGERY; SURGEON TO THE MERCY HOSPITAL; TO THE CHICAGO MED. DISPENSARY, ETC.

LECTURE FIFTH.

TREATMENT OF GUN-SHOT WOUNDS.

Extraction of the Bullet.—The skin opposes more resistance to the passage of a ball than any other soft tissue, hence, in a large proportion of the wounded, the projectile, after having traversed the whole limb or body, is found just beneath the skin, on the side opposite the entrance. In all such cases the best way is to make a small incision, and extract the offender. If, however, the bullet is not thus favorably located it will become necessary to employ other measures for its removal. For this purpose a variety of instruments have been invented. The most common is the bullet-forceps. This is a pair of forceps from eight to fourteen inches in length, perfectly straight, and small enough to follow in the track of the projectile. The jaws should be slender and at least four inches in length, and terminate either in teeth or cup-shaped cavities, to hold the ball. The instrument is introduced

tightly closed, until the end strikes the bullet, when the blades should be separated a little, slipped over it, and withdrawn. The proper seizure, however, is often difficult. The bullet may be imbedded in spongy bone, or what is still more embarrassing, it may be lodged behind folds of fasciæ in such a way that it can only be seized with them, and therefore cannot be drawn out. In such cases, patience and perseverance will generally succeed after a time. An objection to the ordinary forceps is, that it requires to be pushed too far on either side of the ball before it will hold, and then the teeth are liable to embrace the adjoining tissues in their grasp. To evade this difficulty, several devices have been resorted to. Tiemann & Co. have constructed a pair in which the blades are slender, and terminate each in a single round tooth, sloping forward, with no cup. The advantage of this is, that the teeth, when slightly separated, may be sunk firmly into the lead on the posterior side of the ball, and do not have to be pushed past it so as to grasp its bulge. Another instrument consists of a simple rod, terminating in a screw-point like a gimlet, which being turned into the lead a short distance, will hold fast and readily bring it away. In circumstances where apparatus must be extemporized, a common gimlet, or anything having a similar point, will often be an available extractor. In some instances, folds of cloth are driven before the ball in such a way, that by drawing them carefully out, the projectile will come with them. If a bullet cannot be reached or extracted without very extensive or dangerous incisions, it should be allowed to remain. Frequently, by the progress of suppuration and granulation, it will, after a time, be brought within reach, and if not, it often remains without injury or irritation, imbedded in the flesh. I have extracted a number of old shots from the flesh of subjects in the dissecting-room, without being able to discover any evidence of inflammation in the adjacent tissues. Other foreign bodies must be removed still more carefully than bullets, because they offer less hope of remaining innocuous in their beds. Pieces of bone, shreds of clothing, fragments of shell, splinters and stones are among the objects requiring attention.

Hæmorrhage.—In gunshot wounds, the primary hæmorrhage is usually slight. The exceptions to this rule occur when large vessels happen to be cut in the passage of the ball. In such cases the flow of blood may be very large or even immediately fatal. Simple field tourniquets, consisting of a strap, buckle and pad, should be provided in numbers sufficient for the purpose, besides those used in operations. If none are at hand at the moment, one may be extemporized by taking a cord, strap, or sash, tying it about the limb with a wad of clothing placed on the artery for a compress, and then twisting the ligature tight by means of a stick. In the Crimea, attempts were made to acquaint common soldiers with the tourniquet, so that they might, in emergency, save life by applying them to each other. The popularity of this humane project received a shock by the discovery that one soldier had applied a tourniquet *around the neck* of a comrade who was bleeding freely in that region. Fortunately he was alarmed at the symptoms of suffocation, and loosened the strap before death resulted. The persulphate, or the perchloride of iron may be applied with good effect to the bleeding vessels in some instances. While primary hæmorrhage is less frequent in gun-shot than in incised wounds, the secondary hæmorrhage is more common. This occurs generally between the fifth and fifteenth days, and during that time, not only should proper watchfulness be observed, but great care should be taken that the patient is not moved about, nor allowed to exert himself unnecessarily. In the Crimea, the simple removal of the patients from the camp before Sebastopol to Balaklava, produced a number of fatal cases. If secondary hæmorrhage occurs copiously, it may, in some instances, be checked by astringents and compression, but very often it will be found necessary to tie the artery above the wound.

Gun-shot Wounds in the Head.—Are usually fatal if they penetrate the brain. It is true that some astounding recoveries have been made, as for instance, in the well-known case where a tamping-iron was blown through the skull of a man, without killing him. Such cases serve to caution us not to relax our efforts, nor abandon, too soon, all hope of a patient ;

but, nevertheless, such cures are very rare, and the usual rule is, that a bullet penetrating the brain, causes death. In wounds of this organ, it is generally not possible to extract the ball. Still a very cautious probing should be made, bearing in mind the softness of the brain-substance, and if the bullet can be found, it should be removed. To accomplish this, it will be required to enlarge the opening in the skull with the trephine, or gouge-forceps, as the orifice will not admit of the ball and the additional thickness of the forceps being withdrawn through it. After removing all foreign bodies which are safely accessible, the patient must be treated as for any other case of compound fracture of the skull. If he survives the first shock of the injury, he will have to confront the dangers of inflammation of the brain, and of *hernia cerebri*, and will need venesection, cold applications, etc., as in civil surgery.

Gun-shot Wounds of the Chest.—These are often fatal from a wound of the heart, or of the large vessels. It is not true, however, that every wound of the heart produces immediate, or even ultimate death. The case of the notorious Bill Poole, of New York, is an instance where the patient survived many days with a pistol wound in the heart. Many other instances have occurred equally striking, and in some of them when death had taken place years afterwards, from other causes, a post mortem examination has shown the heart perfectly healed and presenting a distinct cicatrix. Such instances occur only when the organ has been slightly touched by a small shot which has not seriously disorganized it. The almost universal rule is, that a gun-shot wound in the heart is immediately fatal. The treatment of the slight cases which prove otherwise, is repose, atiphlogistic, and in some instances, cardiac sedatives, such as *veratrum viride*.

Less fatal, but still fearfully dangerous are the wounds which penetrate the lungs. The bullet in these cases entering into the pleural cavity, or at least, the soft, unresisting tissue of the lung, is seldom stopped near the orifice, but either passes quite through the body, or lodges near the opposite side. No deep and perilous exploration, therefore,

should be made for it. As a general rule, these cases where the bullet passes quite through the body, are safer than those where it lodges in the lungs. Where both lungs are exposed by the wound, they at once collapse and asphyxiate the patient; but where one cavity alone is exposed, the collapse does not take place, except in certain cases. On the contrary, it is not rare to see the lung bulge, like a hernia, from a large wound at each expiration. This phenomenon wherein wounds of the living body differ from those of the dead, has been explained in various absurd ways. The truth appears to be this: The sound lung continues to draw in air without impediment, but in expelling it, it is driven out with a slight pressure, especially if the patient narrows the glottis by sighing and groaning. The pressure thus induced, forces the air into the lung on the wounded side, and expands it at each expiration, which it only partially contracts at each inspiration, thus keeping up the contact between the viscus and the pleura. If the patient bleeds very freely, it will be expedient to lay him with the wounded side down, if he can tolerate the position, in order to allow the blood to drain out of the chest. If there is evidence that the lung is wounded, it will not be safe to close the wound, even after the hæmorrhage has ceased, as in such circumstances the air sometimes accumulates in the pleura to such an extent as to greatly distress the patient. The mechanism of the accident seems to be this: The wound in the lung may be valvular in form, in which case every expansion of the chest sucks air freely into the pleura from the bronchi, while the contractions, owing to the valve shape of the wound, are not able to expel it. If, now, the external wound be tightly closed, there is no place of escape left, and the air pumped into the pleura will accumulate at each inspiration, until its pressure threatens asphyxia. In a very few cases there may be troublesome hæmorrhage from an intercostal artery. If it does not cease upon pressure, it may be easily checked by ligation, either at the wound, or by cutting down posterior to it, and carrying a curved needle under the vessel. Some have recommended passing a ligature around the rib, so as to compress the artery against it, but this is

unnecessary and dangerous to the pleura. The subsequent treatment consists in abating the inflammation of the lungs and pleura, by appropriate measures, bearing in mind that the patient will probably have to endure a long and exhaustive suppuration, and hence, he should not be bled, unless the necessity is very urgent. In the suppurative stage, the strength must be supported by generous diet and tonics, and in a portion of the cases, you will have the satisfaction of carrying your patient through to a complete recovery.

Wounds of the Abdomen.—These are quite as dangerous as those of the chest. In many cases the hæmorrhage from the large vessels is the cause of death, while in others the perforation of the hollow viscera and the subsequent peritonitis produce more slowly the same result. The bullet generally, cannot be found. It does not necessarily follow that a ball entering the abdominal walls, has penetrated the cavity. It may glide around in the interfascial or in one of the intermuscular spaces, and do but little injury. If it enters the cavity, there is still a bare possibility that it may have dropped among the viscera without wounding them. Shot have been known to penetrate the intestines, and be discharged with the fæces without fatal results, and the well-known case of Alexis St. Martin shows that a pistol shot may lay open the stomach without death. In spite of exceptional cases, however, most of these wounds are fatal. There is comparatively little that the surgeon can do for the wounded man, except in a few rare cases. I can only say therefore, that the treatment is the same as is laid down for your guidance in works on civil surgery. In a very few cases you may be able to save life by making an artificial anus.

Wounds of the Pelvis.—Gun-shot wounds fracturing the pelvis, and wounding severely its viscera, are always, or nearly always fatal. A few cases of wounded bladder have recovered. If the urinary organs are injured, it will be requisite to keep a catheter in the bladder, and if urinary infiltrations occur, free incisions must be made to evacuate the fluid.

Bayonet stabs of the trunk are less dangerous than bullet wounds. The viscera, particularly the intestines, often glide

away from the blunt point of the weapon, and allow it to pass without injury. They are to be treated on general principles.

Gun-shot wounds of the Extremities.—These afford the best field for the exercise of skill and judgment by the surgeon.

If the wound be simple, not involving important bones, nerves or vessels, it may be treated with cold-water dressings. If it is more serious in its nature, the question of amputation presents itself for immediate decision. It is necessary that the army surgeon be prepared to make up his mind on this point with promptness. I shall therefore endeavor to condense the principles involved, into a simple and easily remembered form :

1. Owing to the fact that the wounded must often be transported in wagons, and in various other respects, can be less perfectly cared for, than in civil life, some limbs must be amputated, which a private practitioner would save.

2. It will be justifiable to go further in conservative efforts to avoid amputation in the superior, than in the inferior extremity, because the limb being smaller, suppuration and gangrene are less fatal, and the final results of a secondary amputation are less to be dreaded.

3. Simple flesh wounds, simple fractures, and moderately severe compound fractures do not require amputation.

4. If a moderate compound fracture be accompanied with a laceration of the artery, while the vein and nerve are safe, amputation is not required.

5. Compound fractures of large limbs with extensive destruction of soft parts, especially of the nerves or vessels, usually require amputation. Hamilton says, and others agree with him, that compound fracture of the femur, even if the nerves and vessels are safe, requires amputation; but the mortality after amputation of the thigh is so fearful in military surgery, that I advise some discretion in applying the precept.

6. Gun-shot wounds of the knee and ankle joint require amputation. Those of the elbow, wrist and shoulder, require amputation or resection. Those of the tarsus generally require amputation.

7. As all military amputations at the hip-joint have been

fatal, hitherto it will be best in gun-shot fractures of the superior extremity of the femur, to prefer excision of the head, which is a far less severe operation.

8. Wounds of the fingers and toes may be treated as in civil surgery.

The Time of Amputation.—There is a period of a few hours immediately after the injury when the patient is under the influence of the “shock.” If the shock be severe, no effort should be made to amputate until reaction occurs.

After the shock is over, the question arises, whether primary or secondary amputation is to be preferred. Primary amputation is that which is performed during the first stages of the injury, that is, within the first days. Secondary amputation is that which is delayed until the period of suppuration sets in.

After considerable discussion, the accumulation of experience gives the following precepts for your guidance:

1. In proportion as your hospital approaches the condition of civil practice, just in that proportion you will be able to give preference to secondary amputation.

2. In proportion as the hospital is overcrowded, and illy ventilated, early amputation will be more necessary.

3. In injuries of the upper extremity, primary amputations are to be preferred; but in those of the lower extremity, the preference is less strong. The results of experience are that in military surgery, primary, and in civil surgery, secondary amputations are to be preferred for the lower extremities.

4. In certain cases, as where the limb is quite destroyed by a cannon ball, primary amputations are to be preferred, even in the upper extremities.

5. In small limbs, as fingers and toes, primary amputation is objectionable, if delay furnishes any hope of saving the part, because the accidents of suppuration and gangrene in these cases are not seriously dangerous, and therefore may be braved.

The Place of Amputation.—The rule in military, as in civil surgery is, to amputate as far from the body as the condition of the limb and the facilities for forming a good stump

will permit. It is found that the nearer the body the operation is made, the greater is the mortality. Thus in the Crimean war, the mortality after the amputations of the smaller toes was four per cent.; after the large toe, sixteen per cent.; after amputation of part of the foot, twenty-five per cent.; after amputation of the leg, fifty-five per cent.; amputation at the lower third of the thigh, fifty-six per cent.; at the middle third, sixty per cent.; at the upper third, eighty-six per cent.; at the hip joint, one hundred per cent.

All cases of amputation of the hip joint, died without exception. On this account, I advise that no amputation be performed at that joint, if there is the least hope of life by any other treatment. If the head of the femur is shattered, it will be much safer to excise it, which is an operation of comparatively little danger; but the limb should not be cut off if there is the least chance of its preserving its vitality.

In other respects the principles for selection of location are the same as in civil practice.

Mode of Operation.—If great haste is required, the flap operation should be preferred, but if time is afforded, and if the patients must be transported far in wagons, the heavy flaps of that operation are objectionable. They shake, jar and tear out the sutures and adhesions by the jolting, and hence the lighter flaps of the circular method are more successful.

Dressings of Gun-shot Wounds.—The wounds being lacerated and contused, generally inflame and suppurate somewhat extensively, which fact led former observers to attribute a poisonous effect to the gunpowder. If amputation is not required, the wound after cleansing, is best treated by cold water dressings. These may be applied as ice bags, as wet cloth, or by irrigation. This mode of treatment will be found extensively available and of immense value during the first few days after the injury. After that, simple cleansing and dressings with cerate or lint are required. It is of the utmost consequence that *careful and frequent cleansing* be attended to, as the decomposing discharges of great numbers of wounded in a hospital emit poisonous exhalations, which give

origin to hospital gangrene and erysipelas. In all other respects the care of these wounds is as in ordinary surgery. In this matter, the welfare of your patients will depend not so much upon brilliant skill in using the knife, as upon your watchfulness and industry, and determination in enforcing cleanliness.

ARTICLE II.

CASE OF EXTRA-UTERINE PREGNANCY.

CONTINUING FOUR YEARS.--FÆTUS REMOVED BY GASTROTOMY--RECOVERY.

By E. P. COOK, M. D., of Mendota, Illinois.

Mrs. Getchell, the subject of the following report, below the medium height; thin, never more than ninety-five pounds; of a delicate organization; highly excitable, nervous temperament; age twenty-eight years. Was first called to see her February 27th, 1857. Supposed herself to be in her third pregnancy; had menstruated last, October 27th, 1856. Had had symptoms similar to those occurring during her previous pregnancies—cessation of menses, morning sickness, swelling, soreness and secretion in breasts.

The day previous to my being called, had exerted herself rather more than usual, and during the night had pretty severe periodical pains in lower part of abdomen, with some hæmorrhage. This becoming worse, I was called. From the history of her case and present condition, I was at once led to think that she was pregnant, and unless uterine action were immediately arrested an abortion would be the result. Resorted to the ordinary treatment in such cases, and in the course of forty-eight hours the flowing had ceased, but still some pain, which continued more or less for several days. Rest was advised, and the horizontal posture as much as possible. At the expiration of the fourth month she thought she felt motion or the quickening, and declared that she felt more or less movement continuously, as usual in pregnancy, which was also affirmed by her husband; the movements being quite

distinct, though not so strong and frequently perceptible as they had been in her previous pregnancies.

Up to July 26th, which would make nine months, the abdomen gradually and uniformly enlarged, and at the expiration of that time was about the usual size of a woman of her development at full term. We would observe here that the lady was not seen by us during the interval between the period of quickening and after the expiration of the full term. From her statements we learned that she suffered rather more than usual the common inconveniences to which the pregnant female is incident; but there was no material deviation from her usual general health, nor any circumstances that excited apprehension of a serious character in her own mind as to her condition and the final result.

July 26th.—In the absence of the writer, his father, Dr. W. L. Cook, was called to see her, as she supposed herself to be in labor. Had considerable show, and frequent severe pains, from the irregularity and character of which, he soon became satisfied that she was not in actual labor, and gave her an anodyne; the pains soon ceased. She ran along then without change in size, feeling no movement, but suffering from pains (which she compared to the pains of the first stage of natural labor) occasionally, but most severely at the expiration of every month. The general health improved, and she was again able to take charge of her domestic affairs.

In September, 1857, the catamenia returned, and she continued perfectly regular up to the time of operating. The case did not then receive any special attention from me until January 31st, 1858. Mr. and Mrs. G. becoming still more uneasy in reference to her condition, I was requested to call, and if possible, to give a positive opinion in reference to her case, and the better course to be pursued. I would here remark that up to the expiration of full term, I had scarcely any suspicions that the case was not one of ordinary pregnancy, From its continuance, however, without any material change, the case became one of peculiar interest. Condition January 31st, 1858: Looked very well, countenance cheerful, in usual flesh, appetite good, bowels regular, menstruates every month,

does not suffer as much at that period as she formerly did, occasionally has some pain in the lower part of her abdomen—more at night. No change in size since time at which she was last seen; enlargement of abdomen uniform and elastic; could get the outlines of the tumor distinctly, resembling very accurately the form of the impregnated uterus at full term. By carefully comparing the enlargement to either side of the mesian line, it was evident that the greater bulk of the tumor lay to the left side, but the difference not very marked. No unusual sensitiveness on either pressure or palpation. Dull sound on percussion; cannot discover any fluctuation; change of position of body does not change position of tumor; careful examinations per vagina and rectum, did not reveal anything worth noting, except the encroachment of the tumor upon the superior border of the pelvis, and forcing the uterus, etc., low in its cavity; could not by any proper means change position or elevate it in the least. Palpation or any manipulation externally over the abdomen, would not communicate to index finger in vagina a sense of fluctuation.

February 16th, 1859.—No perceptible change in her condition in any respect since last notings; would see her occasionally, and learn that she “was quite smart,” as well as when in her best health previously. For the last two weeks has been suffering considerably with pain through the lower part of her abdomen—left side—and for several nights extremely, with pains resembling first stage labor pains. Re-examined the case carefully, nothing discovered worth the noting; to take anodynes *pro re nata*. Her case ran along thus during the spring and summer of 1859, without materially changing, excepting the increase in her suffering—almost constant pain, and the degree of mental anxiety about her condition, producing a gradual loss of flesh and physical strength.

In September 1859, through the influence of friends and others, Mrs. G. was prevailed upon to visit Wisconsin, with the assurance that a *radical cure* of her case would then be effected.

She returned to Mendota, Feb. 1, 1860, shortly after which she was again seen by me, and from her I learned that her

condition continued about the same as at the time of leaving, until about Dec. 1, when it became evident that her case was undergoing some change,—her abdomen becoming fuller, and at an examination made by two or three physicians, fluctuation was found to be quite distinct. Being satisfied of the presence of fluid in the abdominal cavity, tapping was done, and from three to three and one-half gallons of fluid of a sero-purulent character evacuated.

She recovered fully from the tapping in a few days, and was so much relieved, temporarily, as to be flattered with the hope that she was *radically cured*.

The operator informed her that, on introducing a probe through the canula into the cavity, that it came into contact with *bones*, and that *hair* and small pieces of cartilage were found in the fluid evacuated.

Condition, Feb. 3, 1860.—General appearance better than when last seen; is very cheerful; thinks she is almost well; abdomen much less distended, but circumference over the most prominent part of the tumor only three inches less than it was eight months since, but the enlargement does not extend so high in the abdomen; fluctuation quite distinct; on palpation to the left of the mesian line, just below the umbilicus, a sensation is communicated to the fingers, which I can readily think might be produced by some solid body floating or lying in a sac containing fluid.

It was very evident that the sac would soon be again distended by a re-accumulation of fluid, and candor required us to so inform the patient. Uniformly, but slowly, the accumulation of fluid progressed, and with its increase, she again began to suffer, her pain increasing with the increased distension; loss of rest and appetite, with emaciation resulting, and telling rapidly on her delicate organization. By June 3rd, her condition was such as to make it important, that either the fluid be re-evacuated, or an operation instituted, which would terminate the case fully and finally in either a perfect recovery or death.

The patient and friends preferring that she should be tapped rather than take the risk of gastrotomy—that being presented

to them as the only alternative beyond the temporary relief that might be afforded by repeated tapplings. They, however, decided that it should be left to my judgment, and those whom I might associate with me as assistants and advisers.

All necessary preparations were made, and on June 9, in the presence of, and with the assistance of the neighboring physicians, a trocar was introduced in the median line of the abdomen, about two inches below the umbilicus, and two and one-half gallons of sero-purulent matter evacuated. A sound was then introduced through the canula into the sac, and with all the care and perseverance thought advisable, the sound could not be made to reach any bony bones. Failed in this, we hastily determined to defer any further surgical procedure. Removed the canula, covering the wifing wound made in the integument, with lint and adhesive straps, over which put compress and bandage.

In a few days she was again up, very comfortable, taking food generally, and her system recuperating rapidly. But a few weeks of rapid secretion by the sac, placed her case again where it had been twice previously. To abbreviate, we will state that it was necessary to tap again:—Aug. 7, Sept. 5, Sept. 30. At the third tapping, tincture of iodine was injected into the cavity, with no effect, except to render convalescence sure. It will be observed that the interval between the several tapplings became less as the case advanced; this is explained by the fact, that secretion went on much more rapidly after each tapping, and the temporary relief to her sufferings was much shorter—a less degree of distension of the sac being required to produce it again, yet, at no time was less than two gallons of fluid removed. By the first of October, her almost constant suffering, loss of rest, and the excessive drain on her system, she was so far succumbing, as to make it very evident that life would soon be terminated. She now became very anxious to avail herself of the only hope for relief that could be offered, and though the formidable nature of gastrotomy was candidly presented to her, she still insisted that it should be performed, at the same time saying, with all the confidence of which poor suffering humanity is sometimes capable, that it

would certainly cure her, *that she would live and not die.* It then clearly became my duty to give the patient the benefit of an operation for the removal of the cause, and not simply the effects as had only been done previously.

A surgeon's course, under such circumstances, becomes a moral question of no small importance. With the conviction that a patient should not be allowed to go through a life of suffering to inevitable death, when there is a possibility that an operation may result in a restoration to health, it is clearly his duty to do all he can for the poor creature reposing confidence in him. This matter was fully considered and acted upon in this case. Having determined on the operation, surrounding conditions and the state of the patient were made as favorable as possible, waiting until she should recover from the last tapping, and the sac had time to be pretty well filled again. Accordingly, every arrangement having been made, on the afternoon of October 14, in the presence and with the kind assistance of Drs. Jos. W. & F. H. Edwards, Corbus, Gould, and Dr. W. J. Cook, the operation was performed.

I had determined, with the advice of the physicians named, to make the abdominal incision, evacuate the fluid, remove the fetus, if such we found, and attempt the removal of a part or the entire sac, if its attachments were not such as to render it impossible or inexpedient.

The atmosphere of the room was brought to a temperature of about 70°, and kept moist by the evaporation of water from kettles on the stove. The patient was placed on a bed in the middle of the room, with her shoulders well raised, and a sheet applied as a diaper. She was then put under the influence of chloroform, and I made an incision in the *linea alba* about five inches in length (being just below the umbilicus, and extending toward the pubis) down to the peritoneum. The sac was then punctured, and from two to three gallons of fluid of the same character as that previously removed, evacuated, emptying the sac completely. The adhesions of the sac to the peritoneum at the place of the incision were easily broken down, and the hand passed into the cavity of the abdomen above the sac, the greater omentum was found, partially

adherent to the superior surface of the sac; and as the hand was passed further down posteriorly and laterally, the sac was found so firmly adherent in the left iliac fossa, and over the lower lumbar vertebra, and also, partially in the right iliac fossa, as to render it impossible to remove it without using the scalpel, and dissecting it out, which we had determined, previously, not to do, of the propriety of which determination we were more fully convinced than ever. The incision in the sac was then enlarged, and the hand introduced, and the fœtus (weighing five pounds) removed without any difficulty; the fœtus was entire and in a perfect state of preservation, excepting scalp and bones of the cranium; the softening of the scalp and separation of the superior bones of the cranium was such, that on lifting out the fœtus, they remained in the bottom of the sac; they were carefully removed, but no trace of either cord or placenta were found. The cavities of the sac and abdomen were then carefully sponged out, (there having been in all, not more than two and a half or three ounces of blood lost,) no arterial branches requiring the ligature. After careful sponging, the incision in the sac and abdomen were brought together conjointly by passing large steel needles through at each extremity of the incisions in both sac and abdomen, the needle entering the integument about a half-inch from margin of wound, passing obliquely through the abdominal wall, taking up both lips of the sac, (including peritoneum,) and emerging through opposite edge of incision to that at which it had entered. Around each needle were thrown several turns of the twisted suture. Six sutures were then put in, three on each side, which brought neatly together the free edges of wounds in sac and abdomen, leaving an opening from the surface two inches long, communicating with the cavity of the sac. By thus dressing it, the peritoneal coverings of abdominal walls and of the sac at the margin of the incisions were brought firmly and perfectly in contact, everting and bringing the lips of the sac to the surface, isolating perfectly the cavity of the sac from that of the abdomen, and leaving a fistulous opening communicating freely with it. The surface was then dressed with lint and several strips of

adhesive plaster; over all a light compress and bandage, and water dressing; operation completed at 2½ o'clock p. m. By the time the dressing was completed, had rallied partially. Pulse 100, very feeble; complaining frequently of a severe burning pain at the seat of the incisions. Gave her immediately after the stupefaction from the chloroform had passed off, 1 gr. sulph. morphine, each hour to take ½ gr. At 5 o'clock, pulse 110, more volume, lower extremities cold, vomited freely shortly after the operation was completed, not since. Nine o'clock p. m. Pulse 110, general surface of body and limbs warm; reaction complete; suffers from frequent and severe pains which she compares to *after-pains*; has vomited again; continued the opiate freely. Twelve o'clock m.—pulse same; has vomited again; is more comfortable, but still those pains return occasionally; very little sleep; has evacuated 4½ urine; *via naturalis*. Eight o'clock a. m.—Since midnight has slept nearly three hours; vomited twice; evacuated ½ pint urine; pulse 95, weak; expresses herself as feeling very weak and faint; general surface normal temperature; but little pain; takes beef tea, ice, brandy frequently in small quantities. Eleven o'clock.—Continues to vomit occasionally; sleeps considerably; apparently never prostrated; pulse 115; continue to give opiates at intervals of from two to six hours, and in quantities, varying from ¼ to 1 gr. sul. morphine, designing to keep her system under their decided influence. It will be remembered that from habit, her system tolerates quantities that, under ordinary circumstances, would be enormous. Gave her hydrocyanic acid, without any apparent effect in controlling the vomiting.

One o'clock p. m., 15th Oct.—No material change in any particular; vomits frequently; left Dr. Jas. Edwards in charge of the case.

Seven o'clock p. m.—Has vomited three or four times since 1 o'clock, most of the time resting very comfortably; describes her sleep as being very refreshing; has evacuated urine again; pulse 125, full, skin hot, free from pain. Up to this time there has been no tympanitis or tenderness of her abdomen.

October 16, 7 o'clock a. m.—Pulse 115, not so full; less heat of surface, and less thirst; rested well during the night; no more vomiting; complains of an itching sensation over whole person; dressed the wound, looks well, beginning to suppurate, opening into sac, patulous, whole wound contracted to less than three inches in length.

Seven o'clock p. m.—No material change; pulse not so frequent, has ranged during the day from 95 to 110; sleeps considerably.

4th day, Oct. 17, 8 o'clock a. m.—General condition the same; rested pretty well last night; pulse from 120 to 105 this morning; evacuates (every three to four hours,) with but little difficulty, from 4 oz. to $\frac{1}{2}$ pt. urine; takes beef-tea, rice-water, tea, crackers, etc., in small quantities, frequently.

5th day, Oct. 18.—For the last three days there has been a decided degree of febrile excitement, (with some delirium,) evidently the result of some inflammatory action at the seat of the operation, though there is no evidence as yet, of the occurrence of general peritonitis; abdomen but slightly tympanitic or tender; dressed the wound this morning—looks well; suppurating freely; discharging some from the sac. Takes a pill sulph. morphine, $\frac{1}{2}$ gr. every six hours.

6th day, Oct. 19.—Rested well last night; pulse 105; wound discharging freely; is very tired of beef-tea; discontinue it, and substitute the broth strong; the mind has become very child-like; some delirium; debility more marked; pulse 130.

7th day, Oct. 20.—Pulse 110; debility more marked than ever; wound and sac discharging very freely; fetor very unpleasant; abdomen more tympanitic and tender, particularly to the right of the mesian line; bowels were evacuated freely by enemas of beef broth. For two days, has suffered much from an aphthous affection of the mouth and throat; put her to-day on the use of wine-whey; chlor. potassa and tannin as a gargle for her mouth; to take a pill every four hours, sulph. quinine 1 gr., pulv. opium, $1\frac{1}{2}$ gr.; to apply over dressing to wound, cloths saturated with solution chlor. lime.

8th day, Oct. 21.—Complains less of pain in right side of

abdomen; less tympanitis; pulse 100; mouth and throat very sore; the condition of mouth and throat is identical with that of stomatitis materni; this morning removed the pins; union firm and perfect; length of incision not healed, 2 in; fistulous opening into sac, $\frac{3}{4}$ in.

9th day.—Pulse ranging from 90 to 95; wound suppurating freely; not so much fetor; but little tympanitis; right side of abdomen very tender, and complains much of a dragging pain there; exacerbations of the amount of arterial excitement occur during the afternoons and fore part of nights.

10th day, Oct. 23.—Pulse 100; more cheerful; thinks she will recover; takes more nourishment; oyster broth added to her bill of fare; rested well last night; right side of abdomen less painful and tender, but more tympanitic than was yesterday; secretion of urine and its evacuation the same as previously noted; is stronger, can help herself more. Since removing the needles, the wound has gaped considerably; fistulous opening one inch long—communicating freely with interior of sac, from which there is a free discharge of fetid purulent matter; surface of wound mostly granulating, with a very little sloughing at the lower extremity; dress with lint and adhesive straps, over which apply light compress and flannel bandage, over all apply cloths frequently wrung out of chlor. line water. Directed an enema of beef broth, the same as was done three days since.

11th day, Oct. 24, 8 o'clock p. m.—Pulse 120; restless; more delirium than has ever been; extremities cool; abdomen less tender, more tympanitic; takes less nourishment; mouth and throat the same; stimulants to be increased; cold to head, warmth to extremities.

12th day, Oct. 25.—Rested better last night than was expected; bowels evacuated freely, after repeated injections; the difficulty of the mouth and throat is increasing; takes alternately with the pills of opium and quinine, comp. tinct. bark, with chlor. potassa in solution.

13th day, Oct. 26.—Mouth very sore; deglutition difficult and painful; complains of a burning sensation and feeling of constriction along the course of the œsophagus, and also to

some extent in the epigastric region; has vomited several times to-day. The diseased state of mucous membrane is evidently extending itself down along the course of the œsophagus, and invading the stomach. The mucous membrane of the mouth and throat is peeling off extensively, leaving the denuded and red surface exposed, which is very sensitive. Pulse good and only 100; general condition aside from the difficulty referred to, good; temperature natural, but skin has always been dry; the wound presents a good appearance; edge granulating slowly, and contracting in every dimension; free secretion of semi-purulent matter from sac, but little odor; the sac still continues to a limited extent, to imitate its old secretory function.

14th day, Oct. 27.—Bowels evacuated naturally, twice to-day; continues to take powders, quinine et morphine every six hours; as a local application to mouth and throat, chlor. potassa in infusion of *hydrastis canadensis*; wound doing well.

15th day, Oct 28.—If it were not for the severity of the affection of her mouth, throat and œsophagus, her condition in every other respect would be good. The wound is looking well. Deep in the wound lie the lips of the sac. It has been gradually retracting, until now it is seen at a depth of nearly one inch from the surface of the abdomen, leaving a cupped depression at the seat of the original incisions.

Deglutition very difficult and painful; complains most of a severe burning pain over the region of the middle third of the œsophagus. In all probability the surface is there ulcerated. It is only with considerable effort that she can open her mouth to admit light enough to examine the fauces. The epithelial layer of mucous membrane peels off in large flakes, leaving a red and inflamed base, upon which a rapid exudation occurs, which becomes organized into a pseudo-membranous formation, to be rapidly thrown off, to be succeeded by the same again. The only ulcerated surface that can be seen, is at the angles of the mouth. A slight diarrhœa now existing; pulse ranging from 120 to 130—feeble; is restless; mind wandering; has been harrassed by a very annoying hacking cough for two or three days; the quinine and mor-

phine to be continued ; the potassa discontinued, substituting mur. tr. iron, both for its constitutional and local effects, 20 gtt. to be diluted sufficiently, and given every four hours ; to take all the concentrated nourishment possible.

16th day, Oct. 29.—Is more comfortable ; complains less of her throat ; pulse from 110 to 120 ; she thinks that the iron is helping her very much, and it unquestionably is having a good effect ; the mouth and throat is less sensitive ; the exudation is less in amount, and is thrown off much more easily.

18th day, Oct. 31.—Appetite improving ; mouth and throat better ; deglutition less painful ; in the evening, was sitting up in bed, taking a cup of tea and a soft boiled egg ; the abdomen has been in the least tympanitic for three or four days, very little tenderness remaining ; is very cheerful, and thinks she will certainly get well ; bowels are evacuated *via naturalis* every day ; no difficulty in urinating.

Nov. 1, 19th to 25th day,—since the operation.—Mouth and throat have continued to improve ever since she began the use of the tr. ferri chlor. ; generally rests quite comfortably, and takes nourishment freely. For several days, though the wound has in other respects been doing finely, yet over its entire free surface, and extending down into the cavity as far as can be seen, there has been a pseudo-membranous exudation found, resembling precisely the appearance of the mouth and throat, as far as can be seen. She has complained very much of the wound's smarting and burning, causing so much nervous excitement, as to make it necessary to return to the use of the sulph. morphine, which had been discontinued for several days.

25th to 30th day, Nov. 6 to 11.—For the last six days her condition has not been so good as it was previously, and she is evidently losing, instead of gaining ; debility more marked, and is becoming more emaciated ; takes less nourishment ; rests about the same ; is desponding, and begins to think at times that she cannot recover ; mouth still continues sore, but is much better ; no difficulty in swallowing ; skin generally hot and dry ; suppuration continued quite free from the sac ;

pus of a normal character; some fœtor; external wound gradually contracting, but opening into sac is larger, $1\frac{1}{2}$ in. long. A probe can be passed down three inches towards the right iliac fossa, and not at all to left of mesian line. At this stage of her case, the prospects are fearfully against her final recovery; she continued, however, as generous a use as possible of concentrated nourishment,—stimulants, opiates, etc.

Nov. 16.—Since last notings there has been a gradual improvement in her condition in every respect: takes food freely; rests better at night; does not complain of the wound; is stronger; bowels in good condition; external wound growing smaller slowly; cavity of sac suppurating freely; pus very thick; probe passes to a depth of $2\frac{1}{2}$ in. now. Have discontinued all medicines now, except the occasional use of *il opii et fluid ext. valerian*.

From this on she slowly, but uniformly, improved; becoming stronger, more comfortable, etc. The discharge from the sac decreasing in amount gradually, and by March 1, 1861, she was again able to take charge of her domestic duties.

May 1, 1861.—Her health is as good as it ever was; in her usual flesh; enjoys life and its pleasures as much as she ever did. In reference to the sac now remaining in her abdomen, we would observe that there still remains a very small fistulous opening at the bottom of the depression at the seat of the original incisions, through which a small probe can be passed to the depth of an inch, and that from it there continues to exude a trifling amount of pus. Through the walls of the abdomen the sac may be easily felt, about the size of the closed fist, firmly fixed just below the umbilicus, extending down to the left iliac fossa, the greater bulk to the left of the mesian line.

REMARKS.—It will be a matter of interest to refer briefly, yet more at length than has been done, to some of the features of this interesting case. It may appear very clear, since the history of the case is now perfect, that its *diagnosis* was an easy one at any stage after the time at which I was first called, yet such was not the case. It was with difficulty,

and only after a protracted observation of the case, that I became fully satisfied as to its nature. It is true, that up to the expiration of the period of natural pregnancy, I had no suspicions that the case was not one of ordinary pregnancy; and still, I had considered the case as such, simply from the circumstances attending it at the time when I was first called, and the statements of the lady herself in reference to the movements of the fetus subsequently. After the expiration of the nine months, and the case remaining without change, it continued to become increasingly interesting. For a while I doubted the fact of there ever having been fetal movement, not from any want of confidence in the lady's veracity, but thought she might have been deceived herself. We are well aware that, occasionally, in cases of hydatinous or sarcomatous moles, and under other peculiar circumstances, patients have construed certain sensations felt, to be the result of fetal movements. Yet, after all, there could be no diagnosis of the case made to which there were so few objections as that of considering it as one of *extra-uterine pregnancy*—the evidence confirmatory of such diagnosis accumulating as the case advanced.

Some of the features of this case are of such interest, and one at least peculiarly so, as to demand more than a passing notice (yet, a desire to be brief shall prevent us from reviewing them minutely). We here refer to the fact that after the fetus had been carried in its *provisional uterus*, or sac proper, without any change after the expiration of nine months, until more than three years had passed, then the lining membrane of the sac took upon itself a secretive function, and gave rise to a state of things resembling very much a case of ovarian dropsy; and repeated tapplings were necessary. We have not been able, in all our researches into the history of cases of extra-uterine pregnancy, to find a parallel case in this particular. At the time the embryo secured its primitive connection where it had been arrested and developed in its progress from the ovary to the uterus, indicated by the occurrence of symptoms identical with those occurring in connection with an abortion, there was no sensation of tearing or

giving way of any of the structures in the abdomen or pelvis. At this time, undoubtedly, the primitive cysta of the ovulum was ruptured, without the severing of any large vessel; the internal hemorrhage very moderate; a maternal relation still sustained to a degree compatible with the future development of the ovum; ovum lodging in the peritoneal cavity, giving rise to slight peritoneal irritation, yet within such limits as not to cause general and severe inflammation thereof.

At the time the rupture occurred, by sympathy, the contracted fibres of the uterus were thrown into action, causing pain, and by the same, detaching the decidua, whence the blood had its origin.

At the expiration of the normal term of pregnancy, the fœtus ceased to live, after which, for one year it was carried, the woman enjoying as good health as usual. During the next year and a half, we see the endeavors of the female economy to get rid of its burden. In December, 1859, this is first observed in the amount of abdominal distension, and by the latter part of January, 1860, it becomes very evident that this was owing to the presence of fluid, for which tapping was done. From that time until date of the final operation,—at five different tapplings, and inclusive of the amount of fluid removed at the time of operating, there was from 16 to 18 gallons of fluid removed.

The occurrence of the pains, shortly after the completion of the operation, and their persistence for several days is explained by the fact of the muscular character of the sac, and they were unquestionably the result of its periodic contraction, as occurs with the uterus. It is an interesting question as to what might be the consequence of the occurrence of a future pregnancy. The position of the sac and its extensive and firm attachments, are almost, if not entirely, such as to make impossible the rising of the impregnated uterus out of the pelvis, as it develops, and yet all are aware of the surprising distensibility of the female organism. The favorable result in this case is, no doubt, attributable to a variety of circumstances, not the least of which was the determination and confidence

on the part of the patient that she should recover; and the possession of an organism with such vital tenacity, that nothing short of *articulo mortis* itself would be sufficient to forbid hope. And yet the successful result was in consequence of allowing the sac to remain without forcibly attempting its removal, and the immediate and perfect union of lips of sac to abdominal walls, and establishing a fistulous opening, communicating externally.

I would here express my obligations to Dr. Jas. W. Edwards of this place, for the kind and valuable assistance rendered me during the progress of this case. And also to Dr. Jas. N. Niglas, of Peoria, and Dr. N. S. Davis, of Chicago, for the interest they have taken in its progress, and valuable advice given me.

ARTICLE III.

ACTION OF OPIUM ON THE GENITO-URINARY ORGANS.

By B. WOODWARD, M. D., Galesburg, Ill.

Though opium has been known as a therapeutic agent from the earliest ages, it is not yet fully understood; and as the relations of pathology and therapeutics are being studied, new forms of its action are being developed. Almost all writers on *Materia Medica* unite in saying, "that opium arrests all the secretions, except those of the skin." This is the general belief; and I had taken it for granted, till about three years ago, when an accident made me doubt the assertion, so far as the action was concerned, and subsequent experience has convinced me, that under certain circumstances, instead of arresting, it increases this secretion in a remarkable manner. Having occasion to take a dose of morphine, I was struck with the largely increased urinary secretion, and its clear, limpid character. In order to test the matter, I next day measured all the urine passed in 24 hours, and proved it to be $\bar{3}$ xxviii, specific gravity 1014. The next day after urinating, on rising from bed, I ate and drank as usual, and took a third of a grain of sulph. morphia, at 7, 10, 1 and 4 o'clock,

and measured all the urine passed at 9 p. m., and found it to $\bar{3}$ xlv, very limpid, specific gravity 1003. This experiment was repeated carefully four times, at intervals of five days, and each time proved a corresponding increase in quality, and lowering of specific gravity. Since that time I have several times repeated the experiment, and always with the same results. Lest this should be the result of some idiosyncrasy, I subjected five young men to the experiment, and with four of them, obtained a very large increase, and lower specific gravity. With one of them, on two trials, I found no perceptible increase or diminution of the quantity, but a marked lessening of specific gravity. It is proper to say, that I have not obtained the same results with opium itself, as with its alkaloids, but there has been no difference, whether the muriate or sulph. morphia were used. Acting on these hints, I have repeatedly used morphine in irritable conditions of the nervous system where a diuretic was required, and have always been pleased with the results. These are the class of cases requiring a sedative action, and in which *veratrum viridi* acts on the kidneys. Opium then, appears to be a sedative diuretic, causing an increased secretion from the kidneys, by its relaxing properties. I think it will be found that in many cases of disease, the urinary secretion is arrested by the state of nervous tension, which has been superinduced, and that instead of a resort to stimulant diuretics, sedatives will relax the tension, and allow the secretion to be restored. This sedative action must be brought about by such agents as shall act on and through the nervous system, and not those which act on the blood, (*e. g.* calomel or antimony.) There is a vital difference between sedation of the nervous system and depression. Depression is often caused by nervous irritation, which wears out the powers, and which is successfully combatted by sedatives, which allay the irritation and give the system a chance to recuperate. Whether by the use of opium the solid contents of the urine are increased, could only be determined by an analysis of all passed in a given time; but the evidence of my own is, that they are not. Where there is evidence of a poisoning of the system by retention of excrementitious

matter which should be eliminated by the kidneys, I have found the better plan to be, to combine morphine with a saline diuretic. Retention of excrementitious matters, produces nervous irritation, and this leads to true depression. Another marked action of opium is as an anaphrodisiac. For obvious reasons it is difficult to settle this satisfactorily, but in the cases of several women whom I knew to be opium eaters, inquiry of the husbands has elicited the fact, that in them, the sexual desire was almost extinct; and several men, of whom I have inquired, who used much opium, have acknowledged the same to be true of them. This may account for the impunity, so far as health is concerned, with which Turks and other Asiatics, who all use much opium, keep large numbers of women in their harems. Their lives are spent in a dreamy voluptuousness, while, in fact, sexual appetite may not be largely indulged. The testimony of travelers is, "that large families of children are rare among the wealthy orientals who keep extensive harems." The testimony of a prostitute on this point was, "that she was obliged to use opium freely, so that she should be merely passive, while admitting men to her embrace, or she should have been worn out." I could give the cases of several men for whom I have prescribed opium, to enable them to overcome their lustful propensities, and always with benefit, as it held the desire in abeyance, and enabled them to bring their moral powers to bear. In the case of a most estimable woman, now dead, who, ten days after accouchment, became the victim of uncontrollable sexual desire, amounting, almost, to nymphomania, full doses of morphine by the mouth, and solutions of morphine to the parts, acted almost like a charm, and restored her to herself.

I conclude then that opium has a direct action on the nerves, governing the urinary and generative organs.

TIN FRACTURE SPLINTS.—For a long time, we have been in the habit of using tin instead of wood for fracture splints. This material is so far superior to all others used for the purpose, that we are greatly surprised that manufacturers of patented splints have never adopted it instead of wood. It is

lighter, stronger, far cheaper, and can be moulded into any desirable shape by the surgeon. Thus, as often the case in compound fractures, it being desirable to have some particular part exposed, the surgeon may go to any tinner, and procure, at very trifling expense, the splints, with the necessary openings, which cannot be the case with the use of wood. Any tinman can easily make the splints, but few workmen can make them properly shaped of wood. We would particularly commend them to young practitioners, who may not be able to equip themselves with the more costly appliances, in the commencement of their practical careers.—*San Francisco Medical Press.*

The Clinique.

CHICAGO MEDICAL DISPENSARY.

Service, Prof. E. ANDREWS, Attending Surgeon.

Reported for the EXAMINER.

I. *Calculus*.—GENTLEMEN:—The patient before us this morning is to be sounded, for the purpose of ascertaining the presence or absence of a calculus in the bladder. Calculus is a disease which is fortunately quite rare in this vicinity. In certain sections of the country, which appear to be those where the spring-water is most saturated with lime and magnesia, the cases are said to be very numerous. Thus, in Kentucky and Tennessee, great numbers of cases have been reported. In this city, owing, probably, to the fact, that the water of the lake, which is our drink, is almost free from mineral constituents, calculus is so rare, that I have only seen three cases which originated strictly within our borders, and those three were all of them persons who lived on the outskirts of the city, and drank the highly mineralized water of the wells. Of cases found among those who use the lake water, I think it will be discovered in almost every instance, that they had their origin during a residence in some other locality.

A calculus once formed, goes on increasing in size, until, by the irritation caused by its presence as a foreign body, it inflames the bladder, destroys the health, and ultimately produces death. It is of the utmost importance, therefore, that the case be early diagnosed, and the removal of the calculus effected. I do not propose this morning to give the etiology and pathology of the disease, but simply to instruct you in the practical matters of the diagnosis.

The symptoms of a vesical calculus are rational and physical. The former consist of the effects produced on the patient by the presence of the object; the latter of the sounds and sensations which are communicated by contact with an instrument.

The key of the rational symptoms is found by considering that a rough foreign body resting on the delicate lining of the bladder, must cause chronic inflammation. This inflammation is aggravated by everything which causes the stone to shake and roll about, as riding, running, etc. Frequently on such occasions, it becomes severe and acute, and may be accompanied with a little discharge of blood. After the acute inflammation has subsided, the patient is much improved, but still has a chronic irritation, which lasts all through the intervals between his acute attacks. This inflammation differs from the mild chronic irritation of the prostrate common among young men, in being generally aggravated by shaking and jolting.

Some tenderness is often felt over the pubis. If the cause of the trouble is not removed, all the symptoms become worse. The inflammation is more continuous and severe; it extends often up the ureters to the kidneys, involving them in permanent disease; the urine is ropy and cloudy, the pain is great, and the exhaustion ultimately fatal. Very early in the disease, one curious symptom generally presents itself, and that is a pain referred by the patient to the glans penis. If the organ be examined, it will be found free from inflammation, showing that the suffering is sympathetic, merely, being referred to the wrong spot, exactly as the pain of the knee is in hip disease. The suffering is such, that the patient often tries to alleviate it by squeezing the glans.

Half-way between the rational and the physical symptoms

may be placed the effects of the calculus on micturition. The patient often finds that the urine, after commencing to flow in a full stream, is suddenly checked by the calculus rolling upon the neck of the bladder, and acting as a valve to the orifice; but after lying down, or shifting in some way the position of the stone, he is enabled to recommence the urination. This symptom is not always present. I have operated upon one severe case, where it had never existed, owing to the calculus being half encysted, so that it was fixed in its position, and did not roll about.

Some patients suffer from incontinence of urine, and in fact, almost the whole catalogue of urinary inconveniences might be added to the list of occasional symptoms.

When several of these signs are distinctly present, you can often make almost a certain diagnosis from the rational symptoms alone, but still there is no absolutely conclusive evidence of the calculus, except, to feel it with the sound, and we will now proceed to apply the test:

The instrument which you here see, is made of polished steel, and is of the exact shape of a catheter, save that it is solid instead of hollow. Indeed, by corking up the extremity of a silver catheter, you may convert it into a perfectly good sound. As the parts around the bladder and urethra are very sore and tender, and as it is important to have perfect quietness for the purpose of a thorough exploration, I have directed the patient be anæsthetized before being brought in. This being accomplished, I will now introduce a catheter, and fill the bladder with water. This is advisable, because the cavity being thus enlarged, your instrument moves about more freely, and enables you to judge better of the size of the stone. Having moderately distended the viscus, I proceed to introduce the sound exactly as I would a catheter. It has now entered the bladder, and I feel the peculiar gritty sensation of a calculus. If you listen carefully while I strike the instrument against it, you will hear a distinct click as of steel against a hard substance. When the calculus is quite small, this clicking sound is very faint, and can only be heard by putting the ear close to the handle. And here, gentlemen,

let me give you a caution about instruments. I have seen sounds made with the handle formed of a separate piece, screwed upon the shaft. Such handles are liable to work loose, and to give a false click themselves. The handle and shaft should be of one piece. To judge of the size of this stone, I move the end of the instrument across it in various directions, and by the amount of motion, endeavor to estimate the diameter. I also put the instrument against it, and toss it about, and thus try to judge of its weight and momentum. For this latter test, a corked silver catheter is better than a solid sound, because, having little weight or momentum of its own, it transmits more clearly to the fingers of the operator, the shock of contact with the calculus. In the present instance, I judge the stone to be a little over an inch in diameter, a size rather above the average, but by no means as great as some which I have seen.

Sometimes a stone is lodged in a sacculated cavity of the walls of the bladder, and it is then said to be encysted. If one extremity projects into the general hollow of the viscus, there is no difficulty in feeling it with the sound; but if it is lodged so deeply as to be covered by folds of membrane, you may not be able to find the orifice of the sacculation, and may thus fail to detect the object. In such cases great care should be exercised to carry the instrument over every part of the vesical walls, and the sounding may be repeated in different positions several times. After all, in rare instances, there may remain a concealed calculus, but as a general rule, if, after two careful and thorough explorations you find nothing, you will be safe in asserting that no calculus is present.

The operation of sounding, is, of course, irritating to the organs; hence, the patient must, after it is over, be directed to keep quiet for a day or two, and if requisite, make use of measures adapted to prevent the occurrence of cystitis.

In the present case, I shall recommend the removal of the stone by operation, and at the time of its performance, will give you full instructions upon that topic.

MARINE HOSPITAL—DR. ISHAM'S SERVICE.

Reported by A. D. ROUSE, Hospital Interne.

I. *Dislocation of Humerus of Fourteen Weeks—Reduction.*—.... ., æt 26, was admitted into the Marine Hospital, May 25. He showed an old dislocation of the right shoulder, which had been reduced a few days after the reception of the injury, but by mishap had been re-dislocated, and remained so for fourteen weeks. It does not seem that the original dislocation was the same as was presented by the patient on admission. The luxation was downwards and forwards; the tumor of the head of the humerus was presented under the pectoral muscles below the clavicle. The shoulder was not as much deformed as when the dislocation is in the axilla. The motion of the arm was restricted, and there was no possibility of elevating the hand to the head, or of bringing the arm forward without great pain. There was a hollow beneath the acromion caused by the absence of the head of the humerus, and flattening of the deltoid. From the statement of the patient, it was seen that the original injury was a luxation into the axilla, and that this more rare position of the bone was consecutive to the former. The patient had never exercised the limb since the accident, and it had acquired no motion in its new position.

The patient having been prepared, at his request reduction was attempted by the ordinary methods, and the surgeon, Dr. Isham, succeeded first in breaking up the newly formed adhesions, but was unsuccessful in reducing the limb without using more force than he felt justified in; the attempt was then abandoned. At the patient's solicitation, another attempt was subsequently made by the professor, with better success, upon the plan of Malgaigne. The patient was laid in a supine position upon a mattress on the floor, and anæsthesia produced; a folded cloth was placed over the acromion, and the two ends carried to the feet, and held by assistants; an extended band was placed as usual, and the luxated arm slowly and steadily elevated by extension, as much as possible, to

make it parallel to the axis of the body, when more forcible extension was used upwards and backwards, the professor strongly bearing against the head of the bone with his palms, to assist it to regain the glenoid cavity. It gradually moved towards its proper position, to which the extension drew it, and the folds of the axilla presented the hollow which usually separates them; the assistants, at the same time keeping up the extension, were desired to slowly bring down the arm, and approximate it to the body. The head of the humerus was thus returned to its place, and secured by properly applied bandages, which were worn for some time. The shoulder recovered in a great degree its roundness, and the motion of the arm could be executed with facility. Some flatness is yet shown, owing to the wasting of the deltoid.

This method of Malgaigne of making extension with the arm raised up, is the application of a general principle to dispose of the bones in such a manner, that they may overlap each other, and that extension may restore the limb to its lost length.

II. *Operation for Hernia.*—W. G., a native of France, æt 30, of temperate habits, was admitted into the Marine Hospital, June 3d. The patient has been subject to periosteal pains which yielded to the use of iodide of potassium, and was also afflicted with hernia, an oblique inguinal, for which he sought relief. The tumor instantly appeared upon the patient's assuming the erect position, and readily disappeared in the recumbent. The size of the tumor prevented it being easily and perfectly trussed, and the patient requested that something be offered for the complete cure.

Operation, July 20. The patient was placed under the influence of chloroform, and the surgeon, Dr. Isham, with the left index finger, invaginated the scrotum through the inguinal canal, pushing it quite through the internal abdominal ring, secured the invaginated portion of the scrotum in its new position, by passing along the radial and inner borders of the finger, two long needles armed with a bundle of thread sufficiently large to fill up the punctures made, and threaded upon

which, like a bead, was a rounded piece of cork of a proper size to fit into the ring lined by the scrotum. This plug was drawn up and secured, the end of the suture being brought out upon the surface bordering the inner and outer borders of the ring, and tied over a compress. This was suffered to remain for forty hours, with water dressings, when it was removed, and the adhesions were perfect. The scrotum was sustained in a suspensory bandage, and the 22d the patient pronounced cured.

“DRILL FOR AUSCULTATION.”—No. 1.

By THOMAS K. CHAMBERS, M. D.,

Censor of the College of Physicians, Physician to St. Mary's Hospital and Lecturer on Medicine at St. Mary's Medical School.

Reprinted from the London Lancet.

In all books about Auscultation the necessity for filling a volume, forces the authors to insert a quantity of extraneous matter, by which the real points are smothered. Students are deterred by the formidable look of the subject. But in reality there is no aid to diagnosis or guide to treatment which requires less scientific study or less special tact in its employment. Shelve your books and study nature. All that is wanted is a certain amount of business-like method, common sense, straightforward eyes, and open ears. Use the following order of drill, and I engage that in three or four days you will be capable of reporting on any case that comes before you—you will have acquired all that is practically useful in the clinical examination of the lungs:—

First Step of Drill.—Look over the whole outside of the chest, and see if there is anything wrong about the *skin* or deformity of *shape*. Note particularly *flatness or bulging* of ribs. In males this is quickest done by stripping the upper part of the body all at once. A female's shift is looser, and can be drawn *first backwards* so as to look down the back and sides, *then forwards* to look at the front and sides.

Second Step.—Get behind the patient, put your two thumbs on the top of the two scapulæ, and lay your fingers firm and flat on the collar-bones and upper ribs. Make the patient sigh deeply, and then looking along your fingers you can compare the motion of the two *upper lobes* of the lungs with

one another. If a bright light shines on your finger-nails, you can detect a difference in expansion of one-twentieth of an inch. Then put your thumb-tips on the lowest dorsal vertebra and span the waist as far as you can, make the patient sigh, and you feel the extent of motion of the *lower lobes*.

Third Step.—Percussion—what do you want to find out by it? Only if one part of the pulmonary tissue is more solid than another. Of course it cannot be *all* solid; so if any part is so, it will contain less air, and sound therefore, less drummy, less “resonant” than a more healthy part with which you compare it. Do not think about finding anything else, or you will not pay due attention to this.

Place the patient so that you can lay the fingers of your left hand flat on the thorax. Swing the right hand free and easy, and hammer with your finger-tips on your knuckles in the following order :

AUSCULTATION POSTS.

- | | |
|--------------------------|------------------------------------|
| 1. On right clavicle. | 7. Close under right scapula. |
| 2. On left clavicle. | 8. Close under left scapula. |
| 3. Under right clavicle. | 9. Under right mamma (inch below). |
| 4. Under left clavicle. | 10. Under left mamma. |
| 5. Above right scapula. | 11. Right lateral region. |
| 6. Above left scapula. | 12. Left lateral region. |

Do not go on hammering long, but compare by two or three quick strokes each place with the same place on the other side. In all these parts you ought to find the resonance of the two sides equal, except in the left mammary region, where the heart ought to make dull the spot it is felt to beat in.

If you can detect no absence of normal resonance, take a note of it, and go on to next step. But if there be dulness where it ought not to be, percuss round and round the spot where you first find it, and take a note of the *extent of dulness*.

Fourth Step.—Apply your stethoscope *flat to the naked skin*. Apply it to the same post in the same order that you have percussed, and make notes in the same order of what you hear. Do not trust to what you may consider deviations from an ideal standard, but compare the two sides and note if they differ.

Now, as to what you may expect to hear :

Natural Sounds.—Some healthy lungs breathe very softly, some very harshly : so the degree of sound, if equal throughout, tells nothing. Note therefore, only when they are *defective* in any places, while breathing fully elsewhere.

Morbid Sounds.—Think first what your ear *can* tell you, and do not trouble your brains by thinking about what it *can-not*. It can tell you—

(*Point 1*) Whether air enters the subjacent lung or not ;

(*Point 2*) Whether it passes through natural, soft, yielding tubes, or through stiffened tubes ;

(*Point 3*) Whether it bubbles through fluid or not ;

(*Point 4*) Whether the bubbles are large or small, and therefore whether the open spaces they break in are large or small.

As to Point 1—if no air enters, there is an end of your observation at that spot ; take a note and go on.

As to Point 2—if the tubes and tissues are natural, the sound of expiration is less than the sound of inspiration. If it is equal to it or greater than it at any spot compared with the opposite side, call it “tubular breathing”—that is to say, the air goes through tubes only, and does not enter into the terminal vesicles. The typical example of it is what you hear on each side of the sternum over the large bronchi, and therefore it is often called “bronchial breathing.” Tubular breathing tells you that the tubes are stiffened either by their coats being swelled or hardened, or by the surrounding tissue being condensed.

As to Point 3—air passing through a thickish fluid, like mucus or pus, is sure to make a crackling noise. If it does not do so, if there are continuous whistling, snoring, or piping sounds, they may be safely called “*dry*” sounds and noted down as “whistling,” “snoring,” or “piping,” without waiting to find a French name for them.

As to Point 4—the size of the crackles is important. The very finest are evidence of their being situated in the terminal vesicles of the lung. Imitate this fine crepitation by rubbing your hair between your fingers, and then make as large a bubble as you can with saliva between your lips, and you hear the types of the two ends of the scale of size. The larger they are, the larger the bronchus or cavity in which the bubbles break.

I said that air passing through the viscid fluid is sure to make a crackling noise, so that the *absence* of crackling proves the absence of fluid. But the *presence* of crackling does not necessarily prove the presence of fluid. Unfortunately animal membranes will make a crackling just as leather does. And the crackling of inflamed pleura exactly resembles the crackling of small bubbles. *The sounds themselves* are indistinguishable. Do not be taken in by persons who profess to dis-

tinguish them; they do it by collateral circumstances, as you must do. When you hear crackling, put it down in your notebook, and leave the distinction to the future.

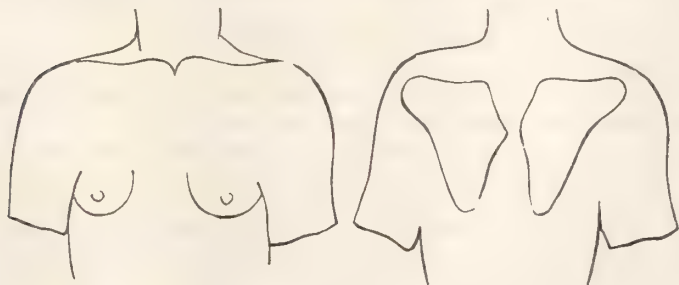
Fifth Step.—Go round again in the same posts with your stethoscope, at each post, making the patient speak a few words of several syllables—such as counting one from twenty. What you have to notice is—(1), whether the voice is heard through the stethoscope at all; (2), if so, whether it is (3) *natural*, that is, a confused sort of buzzing; or (4), *with increased vibration*. In a case where the vibration is increased, notice if it is like a man talking Punch—i.e., *egophonic*; or if, when the patient whispers, you can hear the whispering up the stethoscope—i.e., *whispering pectoriloquy*.

All besides this is fancy work, showy, but waste of time. Even on this real work do not pause too long; the moment you hear a sound, go on to the next post, or you confuse your ear and learn to dawdle.

I will in the next lecture, show you a quick way of taking private notes, and then sketch out a system of estimating the information afforded by what you have heard, and basing a diagnosis upon it.

No. II.

It is a great saving of time in practice to be able to take notes with rapidity. For this purpose I recommend you to acquire the habit of drawing a rough but correct outline of the chest and shoulders, and to have certain marks to record what you have observed. To do it, occupies a quarter of the time of a written description. I make the two outlines which



RIGHT.

LEFT.

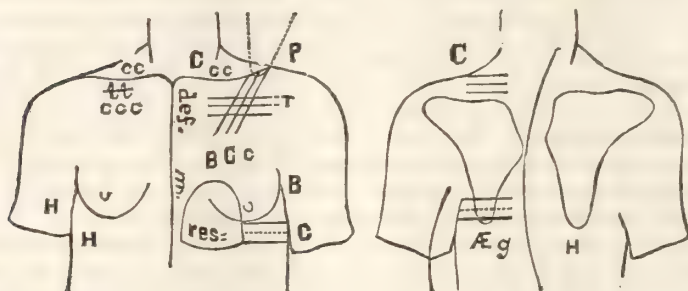
LEFT.

RIGHT.

I show you here on the slate in fifty seconds, and in thirty

seconds more I can mark upon each of the posts of auscultation what I hear by these or any other arbitrary signs.

*Metallic
tinkling Whispering.*



In this sketch the most commonly observed phenomena are recorded by conventional signs, the less common by the first few letters of their names, the still less common by the name written at full length.

A curved line along the spine, (, may denote that the spine is curved to one side or another; and another that there is bulging of the ribs.

Oblique lines, ///, that there is flatness of the chest observed, the first step of the drill.

Parallel lines, ≡, that there is dulness on percussion.

T, or t, that there is tubular breathing; the loudness and depth of tone, being indicated by the size of the letter, showing the size of area it is made in.

C, or c, or cc, that there is crackling, large or small, according to the size of the letter, and extensive according to the number of the letters.

B may denote bronchial or vibratory voice.

P, pectoriloquy.

Def. m. may be written on the line to denote *deficient motion* of the ribs as far as that line extends.

Æg. may denote *ægophony*; res., *unnatural resonance*, with a line drawn around it to show how far it extends; while "whispering voice," "metallic tinkling," "cracked pottery," or any fancy sound which you think it worth while to record, had better be written at full length, with a dotted line leading from the post where it is heard.

H of course means *healthy sounds*, which you should take a note of, though they do not necessarily prove that the lung is healthy. Remember, now and always, that your note records what you hear, not your diagnosis. Thus on the dia-

gram you may see I have noted that in the left infra-clavicular region the ribs are flattened, though the clavicle has not fallen in; that there is a lateral curvature of the spine, with the greatest projection towards the left side; that the ribs on the left side bulge considerably; that there is a deficient motion of both upper and lower lobes of the lungs on the left side; that there is dulness on percussion in the left infra-clavicular, left supra-scapular, and left lateral regions; that the cardiac region is resonant; that there are crackling or crepitant râles in the right supra-clavicular and left supra-clavicular regions; that in the latter these are the larger and coarser; that there are the same râles in greater amount and with small tubular breathing in the right infra-clavicular; that in the left infra-clavicular there is also very loud tubular breathing, large and small crepitant râles, very loud bronchial voice, whispering pectoriloquy, and metallic tinkling; that in the left infra-scapular region there is ægophony; that in the left lateral there is bronchial voice and mixed crepitant râles of various sizes; that the sounds were those of a healthy condition of lung in the right infra-scapular, infra-mammary, and lateral regions.

I need not ask you which mode of record you think will take longest or be most exact.

If you are not quick in drawing with a pen, a further saving of time may be effected by having the outline cut in wood for a few shillings, and stamping it in your case-book when and where required. Or you may have it stamped on thin paper, gummed at the back like a postage stamp, and stick it in when wanted.

Under any circumstances, whether you adopt my method or one of your own, I think it of paramount importance that you should take notes, not of your diagnosis, but of the *ground on which you base it*. It is of no use to yourself, your patient, or to science, to remember that on such a day you thought that there was pneumonia or tubercle, but it is of great use to all to remember why you thought so.

THE SYLVESTER METHOD.—Our British brethren are gradually superseding the ready method of Marshall Hall for restoring suspended animation, by the still simpler and readier one of Dr. SYLVESTER, which is thus given in Heath's *Minor Surgery*: Lay the patient on his back, and having pulled the tongue forward, draw the arms slowly up over the head, by which means the ribs are elevated by the pectoral muscles,

and inspiration is produced; the arms are then to be brought down to the side of the chest, which they are to compress in a slight degree. These movements are to be repeated as slowly as in the other method (the Marshall Hall method), and it is said that they give a more complete charge of air to the lungs.—*Boston Med. and Surg. Journal.*

Selections.

RENUNCIATION OF HOMŒOPATHY.

BY THE LATE EDITOR OF THE NORTH AMERICAN JOURNAL OF HOMŒOPATHY.

To the Editor of the American Medical Times.

SIR:—I wish to put on record in your pages, not only that I have long since resigned all connection with any and every sectarian medical society and publication, but that I now most distinctly do not believe or practise according to any one medical dogma or exclusive system. I have repeatedly been on the point of making this declaration public in some regular medical journal, as it is well known that I have often done in private conversation and in homœopathic periodicals; but frequently the pressing demands of the sick have not left me time, and at other times I have been deterred by the urgent entreaties of friends, backed by that natural repugnance which every one has to publicly acknowledge a change of opinion.

In simple justice to myself, I will beg your indulgence to a short statement of my connection with homœopathy. When a mere school-boy, between twelve and fourteen years of age, and now I am forty-one, I was personally under the care of an aged and accomplished physician, Dr. Freytag, of Bethlehem, Penn. On my return from boarding-school to this my native city, I found many of my nearest relatives under the treatment of Drs. Gram and Gray. Thus, both in Pennsylvania and here, I was early thrown in contact with many and earnest converts to homœopathy. A short time spent in a wholesale drug store, opened my eyes to the immense amount of adulterated, spoiled, and poor drugs and medicines which were then and perhaps are now sold. Not a few of my dearest relatives had not been saved from agonizing death, and some were still suffering with varieties of the most dis-

treassing forms of chronic disease, which had not been averted by all the devotion and skill of many of the most accomplished physicians of the dominant school. I commenced the study of medicine, under the impression, and with the fervent hope that homœopathy, in its future and rational development, would supply all that was deficient in medicine; but all my natural instincts ever have been, and ever will be opposed to all bigoted exclusiveness and one-ideaism in religion, politics, science, and my much-loved profession. As far as lay in my power, I have never been unmindful for a day, from the commencement of my career as a medical student and practitioner, of the numerous and brilliant advances in regular medicine which have been constantly progressing, both in this country and abroad. I must say that I never have been a convert to the use of infinitesimal doses; they have been so repugnant to every fraction of common sense which I possess, that I have always felt absolutely degraded, when making, what I conceived to be, necessary trials with them. I have always felt that I was doing something foolish or wrong when giving them; that I was dealing with quantities so minute and so powerless, that it would be trifling with the lives of my friends and patients to depend upon them in serious cases, and with their time and comfort in milder attacks. I knew full well that Hahnemann had performed all his first cures with tangible doses, and had cited numerous instances from reliable medical authorities, in which, apparently, homœopathic cures had been effected with not unreasonably small doses. I determined to commence where he commenced, and if beaten back to the use of infinitesimal doses, would reluctantly, but at the same time decidedly follow the results of my experience. I have never felt myself obliged to fall back upon infinitesimal doses; but, on the contrary, have been more and more successful in strict proportion as I gradually increased upon the very small quantities which I first used, and in proportion as I departed from a slavish adherence to one system of medicine. The reports of others, both physicians and laymen, frequently led me to make careful trials of infinitesimal doses in various cases, but never with satisfactory success; while many extraordinary instances of recovery from distress and sickness in which no medicine had been given, and numerous consultations to which I was called by homœopathic physicians, in which severe disease had gone on unchecked by these powerless agents, more and more convinced me that they were irrational and unsafe.

A careful study of the Homœopathic *Materia Medica*, early convinced me that it was visionary and unreliable. I labored

long and zealously to do my share towards giving it a more practical and common-sense shape.

The dogma, *similia similibus curantur*, was long a stumbling block to me; it seemed so utterly opposed to reason, that it was often with difficulty that I could force myself to practice according to it. But, many years ago I hit upon an explanation which was, and is still, perfectly satisfactory to me. It is self-evident that, in order to cure any disease, a state *different* from that presented by the disease, must be brought about; hence, a curative drug must either primarily or secondarily exert an *alterative* action; that is, if we leave mere revulsive effects out of the argument for the present. Similarity is not identity, but a similar thing, although it resembles somewhat, or even strongly, also *differs* somewhat, and even greatly. Hence, a drug which acts similarly to the action of any given disease, also differs somewhat in its action, and ultimately may exert an *alterative* effect. Similarity is a hybrid consisting of a great or greater degree of resemblance, coupled with a less or lesser amount of difference; in fact, similarity may be defined as a *slight degree of difference*, quite as well as interpreting it as a great degree of resemblance. Hence, the homœopathic law is *only an apparent and fragmentary truth*, not a complete exhaustive law. It is a fragment of the great law, *differentia differentiis curantur*, seu *alterantia alterantiis curantur*, of which in its form the old law, *contraria contrariis curantur*, is another fragment. For opposite or antagonistic things are such as *differ* in the greatest degree; while similar things are merely such as differ in the least, or lesser degree, or in certain particulars; while in others, they may be *essentially different*. Identity excludes the idea of difference, while similarity may include only the idea of casual likeness. Upon these ideas or principles, I have long thought, studied, and practiced, and have gradually become more and more convinced that the homœopathic is only a partially, or even only an apparently true law; a mere fragment of the greater law of alternative antagonistic action which has been practiced upon for ages.

The immense advances which have been made in the regular school in pathological anatomy, diagnosis, microscopical and chemical investigation, in auscultation and percussion, in the use of the speculum and ophthalmoscope, and in the use of ether and chloroform, necessarily force every student of medicine to give the larger portion of his attention to the publications of the dominant school. I have long endeavored to force these tangible, practical, and essential advances upon the attention of the homœopathic school, and labored almost

in vain to convince the fraternity that the healing art is so far from having attained a state of perfection, that no school has a right, wholly, to despise and reject the other, and that a wholly derogatory estimation of every other method than their own, is not a necessary consequence of their adherence to the latter. Hence, I must prefer the greater to the lesser truth, and however painfully and reluctantly, must endeavor to cast my lot with other friends, other theories, and other practice.

But the homœopathists have discovered some new remedies, and renewed the use of many forgotten old ones. If consistent with the object of your periodical, at some future time, I will furnish short articles on the use of *ignatia*, *cocculus*, *pulsatilla*, *agaricus*, *hammemalis*, *cannabis*, *sativa*, *euphrasia*, and other remedies, simply premising that it is not at all necessary to use them in infinitesimal doses, nor always according to the homœopathic law.

Yours, &c.,

J. C. PETERS, M. D.

WARDELL ON ENTERIC FEVER.

Reprinted from *London Lancet* per BRAITHWAITE.

[Of course our readers are aware that, by those who have had most opportunity of judging, fevers are divided into typhus, enteric or typhoid, relapsing, and febricula. The two first are the principal and of most importance. Dr. Wardell published some papers on this subject fourteen years ago, founded on the observation of 1200 cases of fever in the hospitals of Edinburgh. At that time he believed enteric and typhus fever to be the same.]

Enteric fever begins more insidiously than typhus, and much more so than the relapsing. In the latter, the attack is sometimes quite sudden; a person may go to bed comparatively well, and in the morning be seized with shivering, headache, pains in the limbs, and other symptoms. There is less dulness and stupidity in the enteric than in typhus, in which the great nervous centres seem prone to be more readily impressed, as if the poison at once affected animal life. It is quite true, however, that all forms of continued fever in the symptomatology of accession present much in common, and, under an experienced eye, it is often difficult during the first few days, or even until the rash appears, to arrive at a decided

diagnosis. In typhus, the muscular system evinces great prostration, not only at the first, but throughout the disease; as a rule, the patient lies helplessly on his back.

Dr. Jenner has noticed that, in the enteric type, patients have a greater tendency to "get out of bed" than in typhus; the delirium is of a more vivacious kind; they are less easily restrained. In many cases the delirium does not come on until the second or third week; when it does in the first week, it is to be looked upon unfavorably. In typhus it supervenes before the end of the first week, when it increases, and in fatal cases ends in coma. In relapsing fever, there is comparatively little delirium and head complication. On reference to my own account of that disease, in one table giving particulars of 450 cases, leeches were applied to the head, on the average, to 1 in 6.62; in another set of 80 cases, it was a predominating symptom in the small proportion of 1 in 11.42. According to Louis, the brain and its membranes, of those dying of the enteric, rarely present any such marked appearance as might be deemed of potential consequence entering into the causation of death. To those who have had considerable experience in morbid anatomy, it is well known that the encephalic mass gives little explanation of the essential nature of continued fevers. A small amount of subarachnoid and ventricular effusion, a pinkish flush of the cortical substance, or it may be a few puncta in the centrum ovale, constitute often the entirety of morbid phenomena, and I have repeatedly examined this organ when it evinced no lesion. Even coma may not be traced after death. There is no doubt that the views enunciated by the late Dr. Clutterbuck, and those professing similar opinions—regarding fever to consist of inflammation of the brain—led to much mischief in practice, and that a more correct pathology (which is, it cannot be denied, an approach to the once widely-received and then discarded humoral doctrine) has been succeeded by a more successful mode of treatment—viz., that treatment, which, as far as possible, dispenses with depletive measures, which is more expectant and conservative in its aims, and which, by having a just relation to a set of morbid actions not primarily located in any single organ or separate tissue, but pervading the entire organism, opposes asthenia. The late Dr. Alison, whose clinical assistant I was, and whose practice I carefully observed, used to dwell with much emphasis upon the Cullenian maxim of "averting the tendency to death"; and although he did not carry the wine and brandy remedy to the extreme, which, by some, has latterly been advocated, yet, he had long seen, with much sagacity, that acute diseases, and more

especially fevers, had, from some subtle and inexplicable cause become less sthenic in their nature, demanding remedies, which, in previous years, were accounted inapplicable or decidedly prejudicial.

Those organs and surfaces which are of an eliminative, a depurative, or defecating character—those emunctories and outlets whereby the products of organic waste and effete matter are carried off, are precisely those which are most liable to become affected in the progress of fever. That poison, which, by a most rapid multiple, has so vastly increased as to contaminate the whole of the circulating fluid, in obedience to certain vital laws inherent in the organism, by such channels becomes expelled, hence, according to the power of such agent, the excess or defect of function of such organs and surfaces; and thus it is that the skin, the mucous membranes, and the parenchyma of secernant viscera more especially manifest the effects of the specific poison. Ancient theory and every-day facts convince us of those conservative qualities which the system possesses, whereby it essays to eject what it cannot assimilate, and to get rid of such noxious matter as it may have contracted. In the exanthemata, the skin and the mucuous membranes of the air-passages are the chief seats of its determinations; in enteric fever, the pustulation is in the digestive tube, mainly in the ileum; in typhus, the mulberry rash evinces an effort made at the superficies to throw off the poison; and in relapsing fever, the powerful diaphoresis which so frequently at once resolves the fever, inculcates the same doctrine. It now being conceded that the three eruptions peculiar to the respective types of continued fever, are as pathognomonic of those varieties as are the eruptions in the exanthemata, properly so called, it would really seem that it is merely an arbitrary distinction on the part of systematizers and compilers of nosology, whereby they are differently arranged. They all have many features in common; they all originate from peculiar morbid poisons, requiring a greater or less period of incubation; they all pass through a certain train of febrile phenomena; and in all the great centres of animal and organic life are in varied degree affected. Again, there are many points of resemblance in the complications which arise, in the demand of treatment, in the sequelæ, and in the phenomena of the fatal issue. If we were to make a hasty comparison between small-pox and spotted typhus, how many characteristics they manifest of a like nature, still unquestionably caused by poisons, with which like only produces like. Both originate from peculiar poisons, are contagious, require a certain period for development, are dis-

eases in which the prime agent specially operates upon and multiplies in the blood; in one the eruption may be looked for on the third, in the other on the sixth day; in both are all the pyrexial symptoms, as a quick circulation, high temperature, furred tongue, anorexia, diminished secretions, and a great impress is made on the nervous system; in each organic complications of the inflammatory kind may arise; there is delirium and often coma. In the one form, death mostly takes place on or about the eleventh day; in the other, rarely till after the twentieth; and both may have sequelæ attacking the same organs and tissues. And similar comparisons might be drawn between any two types taken from continued fevers and the exanthems. Although human reasoning cannot say why it is that in one variety the pustulation is in the intestines, in another in the skin, yet accumulated observations have long shown, that between the skin and the mucous membrane of the digestive tract there is a peculiar sympathy, and that between the enteric and variolous phenomena, many of the fundamental symptoms exemplify no slight or casual features of resemblance.

Dr. Kennedy, of Dublin, in a paper read a few months ago, before the Medical and Chirurgical Society, propounds the doctrine that typhus and typhoid (enteric) are mere varieties originating from the same poison. Dr. Jenner's facts are opposed to this opinion. Of relapsing and typhus I can speak with much certainty. Sixteen years ago I maintained from very elaborate data their distinct essence, and such doctrine still holds good. In more than 1200 cases, I never saw typhus and relapsing blended. The infection caught from one fever never produced the other. Like always produced like in a multitude of instances. I have given in my papers thirty-two cases, in which the two forms succeeded each other within a short space of time. Seventeen out of the thirty-two who had passed through the relapsing, contracted typhus during convalescence, or within the brief period of three months. The proofs of the non-identity of their essential cause were as clear as the common-sense proofs we have, and as practice ever tells us of the non-identity of small-pox and scarlet fever. If typhus differs from the relapsing, why may it not differ from the enteric?

THE general practice of the French Surgeons in the Crimea was to extract foreign bodies from wounds at an early period, whenever they were easily accessible. The most effi-

cient styptics in arresting hemorrhage, where the blood-vessels could not be conveniently tied, were the perchloride and the persulphate of iron. Amputations were generally resorted to in severe injuries of the limbs, and the results were more favorable than when conservative surgery was attempted. Primary amputations were much more successful than secondary.

Book Notices.

LECTURES ON THE DIAGNOSIS AND TREATMENT OF THE PRINCIPAL FORMS OF THE PARALYSIS OF THE LOWER EXTREMITIES.—By E. Brown-Séquard, M. D., F. R. S., etc., etc. Philadelphia: J. B. Lippincott & Co. 1861.

This is the title to a neatly printed volume of 118 pages, embracing four lectures on the nature, diagnosis, and treatment of the various forms of paralysis of the lower extremities. It is an interesting and highly instructive volume, and will abundantly repay the practitioner for its purchase and careful perusal.

The author's *pathology* may be stated in very few words. He regards paralysis as arising from two different and essentially opposite conditions of the spinal cord or central parts of the nervous system. The first condition consists in a *contraction* of the blood-vessels, and consequent diminution of the quantity of blood in the part, with diminished nutrition. This condition he regards as capable of arising from irritation in the extremities of any of the sensitive nerves, whether distributed upon internal or external organs; and hence, he gives to cases originating thus, the name of *reflex* paralysis. The same pathological condition, though more fixed and permanent, exists in those cases, accompanied by *white softening* of the cord.

The second condition productive of paraplegia, consists in a dilated or hyperœmic state of the vessels of the spinal cord, and is met with in two stages, namely, congestion and inflammation.

In regard to the mode by which the supposed contraction

of blood-vessels is produced, and in turn, gives rise to paralysis, the author says:

"As it is now well established that blood-vessels contract with energy, and sometimes even are seized with a real and prolonged spasm, whether by a direct influence of their motor nerves, or through an excitation, which, from some centripetal or excito-motor nerve, has been reflected upon them by the cerebro-spinal axis, there is no need of showing here, that blood-vessels are just like muscles of animal life, as regards their relation with the nervous system. This being the case, it is extremely easy to understand how a paralysis of the lower extremities, as well as that of any other part of the body, may be produced by reflex action. In three different places, a contraction of blood-vessels may cause paraplegia—1, in the spinal cord; 2, in the motor nerves; 3, in muscles.

* * * * *

We think it will now be considered possible, if not probable, that the production of reflex paraplegia is due to a contraction of blood-vessels and to the insufficiency of nutrition that follows this condition of the vessels."—(See pp. 24 and 25.)

The author having traced paraplegia to two distinct and essentially *opposite* pathological conditions, the diagnosis of one of these conditions from the other becomes a matter of great practical importance in reference to the adoption of a rational course of treatment. Hence, he devotes the greater part of his second lecture to this topic, to a perusal of which we must refer the reader, making room only for the following concluding remarks:

"A *reflex* paraplegia is almost sufficiently characterized by the absence of the special symptoms of an organic disease of the spine or its contents, and the existence of an incomplete paralysis of the lower limbs that has appeared somewhat slowly after a disease of the urinary or genital organs, or of some other abdominal viscus; after an inflammation of the lung or pleura, or after some kind of irritation of a nerve in its trunk or cutaneous ramifications. In a great many cases of reflex paraplegia, we shall find nothing else upon which to ground our diagnosis. But usually, in a short time, a much greater probability of the accuracy of the diagnosis will spring from the correspondence between changes in the degree of paralysis with changes in the visceral disease, or external irritation that is supposed to have produced the paraplegia."

The author regarding reflex paraplegia as originating from diminished circulation and nutrition of the spinal cord, or some of its centres, recommends a treatment which may be embraced in the following propositions: 1st. Remove as far as possible the external irritation or local visceral disease from which the disturbance of the spinal circulation originated. 2d. To give such remedial agents as are capable of increasing the circulation in, and nutrition of nerve structures. Concerning remedies for this purpose, the author says: "We know but one remedy that really deserves confidence—it is strychnine." He says it acts in two ways: "1st, in increasing the amount of blood in the spinal cord; 2d, in acting in a special and direct manner on the tissue of the cord. As regards the first mode of action, we will only state here, that it is a positive fact that the quantity of blood circulating in the spinal cord, is very much increased, and that consequently its nutrition also is increased. As regards the second mode of action, the admirable researches of MM. Martin, Magron and Buisson have established beyond doubt, that even when the spinal cord does not contain any blood, strychnine directly applied upon, or in that organ, increases so much its vital property, that reflex tetanic spasms may be produced. * * * We shall insist, by and by, on the importance of making use of strychnine persistently in almost all cases of paraplegia, in which there is no inflammation or no congestion of the spinal cord or its membranes."

The power of strychnine to increase the amount of blood in the cord, and to exalt its reflex power or susceptibility, thereby rendering it one of the most efficient remedies we possess in the reflex or functional paralysis, renders it, not only inapplicable, but positively injurious in all cases dependent on either congestion or inflammation of that organ. Hence, the author very justly dwells with much emphasis on the necessity of making a careful diagnosis in every case of paraplegia. Our own observation has confirmed this necessity. There are no affections treated more empirically than the paralytic. By many, the existence of paralysis, either partial or complete, is sufficient to cause an immediate resort to the use of strychnine,

electricity and kindred excitants, without any clear idea as to the actual pathological condition on which the paralysis depends.

This work of Dr. Brown-Séquard will do much to bring about a more discriminating practice. It is but a few weeks since we were called to see a gentleman who had nearly lost the use of both lower extremities, with impaired action of the bladder and rectum. His pulse was 85 per minute, and firm under the finger; there was tenderness over the lumbar and sacral vertebrae, and not only tenderness in the part, but pressure over the lower part of the sacrum, would uniformly send a thrill like an electric shock through the lower extremities: there was almost complete loss of sensibility in penis, scrotum and perineum, with occasional, painful, spasmodic action of the muscles of the bladder and rectum, but no involuntary discharges; there was a peculiar sensation, as if a ball or hard substance was constantly pressing on the bottom of the feet towards the toes; so much impairment of motion, that the patient could walk only with great difficulty, yet the sensibility of the extremities instead of being impaired, was rather increased, constituting "*soreness* in the flesh." His urine was scanty and bowels moderately costive, yet his appetite was very good, and there was no general feeling of indisposition. The foregoing symptoms had come on gradually, and though plainly indicating an inflammatory condition of a portion of the spinal cord, yet the patient had been taking strychnine during all the preceding week, and as the paralytic symptoms were increasing, he was about to resort to electricity.

In another case of complete paraplegia, coming under our care in the Mercy Hospital, the paralysis had supervened suddenly, and though accompanied by a quiet pulse, increased heat in the extremities, and such an exalted degree of sensibility, that the slightest touch or motion was painful, yet he had been using as remedial agents, both strychnine and electricity. It is hardly necessary to add, that in both these cases the symptoms increased in severity while the use of the strychnine was continued.

The treatment which our author recommends for paraplegia

depending on chronic inflammation or congestion of the spinal cord or its membranes, consists in the avoidance of a dorsal position, the daily use of hot water douches over the spine, dry cupping in the same region, and the internal use of belladonna, ergot of rye, and in those cases accompanied by effusion, the iodide of potassa. In regard to the *modus operandi* of belladonna and ergot, he says :

“Amongst the remedies to be employed internally, the most active are those which have the power of diminishing the congestion of the spinal cord. The two which seem to be most powerful in this respect are *belladonna* and *ergot of rye*. Experiments upon animals have shown to me, in the most positive manner, that these two remedies are powerful excitants of unstripped muscular fibres, in blood-vessels, in the uterus, in the bowels, etc. * * * * Not only have I seen the diminution in the calibre of blood-vessels of the pia mater of the spinal cord taking place in dogs after they had taken large doses of belladonna or ergot of rye, but I have also ascertained that the reflex power of the spinal cord (most likely as a consequence of the contraction of blood-vessels) becomes very much diminished under the influence of these two remedies, which, in so doing, act just in the opposite way to that of strychnine.”

Again he says : “Led by the knowledge of the above facts, we have employed belladonna and ergot of rye in cases of paraplegia due to a simple congestion or a chronic inflammation of the spinal cord and its meninges, and we have obtained a greater success than we had dared to hope for.”

We have found so much of interest in this little volume, that our notice has already extended much farther than we intended. We cannot too strongly recommend it to the profession. For several years past, we have not only acted on the supposition, that paralysis might arise from the two opposite pathological conditions of the brain and spinal cord described by M. Brown-Séquard, but also, that cases are occasionally met with from loss of susceptibility in the *muscles* of the paralyzed part, without any morbid condition of the spinal cord or other nerve-centres. And we are not sure, but a number of cases, ranked by the author just named, as cases of reflex paraplegia, are really such as have the pathological lesion primarily in the muscular instead of the nerve structure.

NEW PERIODICAL.—We have received the first number of the *Buffalo Medical and Surgical Journal and Reporter*, edited by JULIUS F. MINER, M. D., Surgeon to Buffalo General Hospital. Its editor “desires to say that he is looking to the profession for the means of success in the undertaking, and will not allow himself alone to be held responsible for its success or failure, since he is depending not so much upon his own exertions as the assistance he expects to receive from others. He enters upon the duty stimulated by the hope and expectation of so complete success, as soon to justify the enlargement of the *Journal*, rendering it more acceptable and useful than it can possibly become in its present restricted limits.”

We welcome the *Journal and Reporter* to our exchange list, and trust its “hope and expectation” may be fully and speedily realized.

THE LANCET for September is at hand, with the first of a course of lectures on PAIN, and the *Therapeutic Influence of Mechanical and Physiological Rest in Accidents and Surgical Diseases*, by JOHN HILTON, Esq., F. R. S., before the Royal College of Surgeons. The usual variety of interesting papers, etc., fills the number, making the *Lancet* one of our most valued exchanges.

ADDRESSES, REPORTS, ETC.—Dr. ASHBEL WOODWARD's annual address, as President of the Connecticut Medical Society, delivered at the convention of that body in May last, is an exceedingly practical essay on the comprehensive topic—*Life*. We have marked passages for reprint, which illustrate the speaker's axiomatic strength of style and treatment of his subject.

—THE *Communications of the Rhode Island Medical Society*, for 1861, are made up of half a dozen papers from its members, the most interesting of which is a *Letter on Some Points of Military Surgery*, by the venerable USHER PARSONS, M. D., of Providence. The use of the chlorate of potassa in phagædenic ulcerations, with cases illustrative, is detailed by W. OWEN BROWN, M. D. The salt is applied in solution, of vary-

ing strength, according to the severity of the ulceration—in one very threatening case of vulvitis, the salt in powder was freely sprinkled upon the diseased parts; and in ordinary stomatitis, Dr. Brown uses the chlorate, either in solution or intimately mixed with powdered sugar, and with the effect of arresting the ulcerative process very promptly.

“Weedon Cooke, Esq., Surgeon to the Royal Free Hospital, says: “It is invaluable in foul chronic ulcers of the legs; in tertiary sores not of an inflammatory character; in ulcers of the mouth and tongue, arising either from syphilis, or cancer, or *carcerum oris*, or necrosis of the jaws; and especially so in cleansing and deodorizing, and indeed, healing many parts of the body. I have employed it in all these lesions at the Cancer and the Royal Free Hospital, and am daily reminded of its estimable benefit wherever there is an absence of active inflammation.”

—THE subject of medical education occupied a large share of the *Transactions of the Indiana State Medical Society* at its annual meeting in May last, at Indianapolis. The address of the President—Dr. B. S. WOODWORTH, of Ft. Wayne—touching the effects of a higher system of medical education and kindred topics, is an out-spoken, sensible effort, abounding in what country folks call “horse-sense”—calling a quack a quack, without indulging in any oily euphuisms, with which to soothe the tender sensibilities of men who defile their Alma Mater and disgrace their cloth by charlatanry and trickery. The committee on the subject of medical education—JAS. F. HIBBARD, M. D., chairman—present an elaborate plan for the remodeling of the present system.

Editorial.

THE CHICAGO MEDICAL JOURNAL AND LIND UNIVERSITY.—After three months delay, the June and July numbers of the *Chicago Medical Journal* (consolidated into one) have come to hand. In glancing over their pages, we find the following paragraph, which is not only inexcusably *mean* in its intended

bearing on the University, but is also destitute of even the semblance of truth :

“Most of our readers may have heard of the Lind University, and the great medical reform department, established by Mr. Lind, with worthy co-operators. The following extracts from the *Chicago Daily Tribune*, of Thursday, June the 27th, 1861, exhibit a few only of the facts which the public ought to know, concerning the source of the funds with which Mr. Lind may have been able to reform and convert the world medical and non-medical : “It is only a matter of common fairness to state that the diversion and misappropriation (of the city funds) are laid solely to the act of *its* treasurer, Sylvester Lind.” “It is not a pleasant reflection that a man who could endow a sectarian institution of learning to the amount of \$100,000, should, by his official misconduct, cause the *indefinite suspension of our public schools.*”

A careful reading of this paragraph will show that it fairly implies the following propositions :

1st. That Sylvester Lind was the chief agent in establishing the Medical Department of the Lind University.

2d. That he endowed the University with \$100,000, and derived the means for doing it from the city funds, entrusted to him as *its treasurer*.

3d. That such perversion of the public funds had caused the indefinite suspension of our public schools.

Were it not for those readers of medical journals abroad, it would be unnecessary to take any notice of statements which are so well known here to be entirely false in every particular. Mr. Lind had nothing to do with the establishment of the Medical Department of the Lind University, except to *rent* a part of a block of buildings for its occupancy, for which he was paid a fair rental annually. He never actually endowed any department of the University with a single dollar, and consequently, never used any city funds for that purpose. Years ago, before Mr. Lind had anything to do with the public funds of the city, he *offered* to endow the Theological Department of the University with \$100,000, on certain conditions. Those conditions could not be complied with by the Board of Trustees, and consequently the offer was never carried into effect.

The third proposition, that Mr. Lind's default had caused the "indefinite suspension of our public schools," is too ridiculous, even for a sensation paragraph in a newspaper.

The truth is, Mr. Lind never had a dollar of the city school funds in his hands, or any funds that could in any way influence the public schools. He was simply Treasurer of the Board of Sewerage Commissioners, and all the money in his control was for *sewerage purposes*, and in nowise connected with schools, either public or private. All these facts were well known to the editors of the *Chicago Medical Journal*, when they inserted the above paragraph; and hence, they could have had no other motive than the hope of perverting the delinquencies of an individual to the discredit and injury of a public educational institution. The friends of the Lind University, and of the course of education generally, may rest assured that the failure of Mr. Sylvester Lind, does not in any degree, affect the prosperity of that or any other educational institution. The University and the public schools of the city, are as active, prosperous, and useful to-day, as at any time in their history.

CHANGES IN MEDICAL COLLEGES IN THIS CITY.—The extensive military organizations and movements, going on in every part of the country, leave but few institutions unaffected. They have caused, at least, temporary changes in the faculties of both the medical colleges of this city. M. K. TAYLOR, M. D., Prof. of Pathology and Public Hygiene, and H. WARDNER, M. D., Demonstrator of Anatomy, have both accepted appointments, and are doing duty as surgeons in the volunteer regiments of this State. Their places in the Medical Department of the Lind University, have been *temporarily* filled in such a manner, as to prevent the omission of a single lecture from the regular course of instructions. The full course on Pathology will be given by the Professor of Practical Medicine, and J. S. JEWELL, M. D., will fill the place of Dr. Wardner, as Demonstrator.

From the faculty of the Rush Medical College, we learn that J. V. Z. BLANEY, M. D., Prof. of Chemistry, and J. W.

FREER, M. D., Prof. of Surgical Anatomy and Microscopy, have been appointed Brigade Surgeons, and E. POWELL, M. D., Demonstrator of Anatomy, has accepted the post of Regimental Surgeon, and is already on duty. Dr. Powell's place in the college will be temporarily supplied by I. P. LYNN, M. D., aided by the Professor of Anatomy.

What provisions will be made for the courses of Professors Blaney and Freer, we do not know, and we think the matter, at this date, Sept. 1, is not definitely determined.

PERSONAL.—J. H. DOUGLAS, M. D., editor of the *Am. Med. Monthly*, having been appointed on the *Sanitary Commission*, L. ELSBERG, M. D., editor of the foreign department of the *Monthly*, succeeds him in the control. Dr. E. is an impartial, able and scholarly writer, and the *American* will lose none of its well-earned reputation in his hands.....Drs. PRINCE, FREER, BLANEY, RAUCH, HAVEN and SIM have been appointed Brigade Surgeons, in the Federal army, from this State. Dr. Blaney is assigned to General Hunter's Division, Drs. Freer, Sim and Rauch go to Washington, and the remainder are not yet assigned.....Dr. W. H. DAVIS, of Paris, has been appointed Regimental Surgeon, and his place on the Board of Medical Examiners is filled by Dr. GREEN, of Salem. The Board still holds daily sessions in this city, but will adjourn to Springfield on the 16th. They have passed, since our last, eighteen additional surgeons and twenty-six assistant-surgeons—making in all, forty-two of the former, and fifty-one of the latter grade passed.....Dr. R. M. HODGES, of Boston, a surgeon of promise, and a skilful anatomist, has received the Boylston Medical Prize for 1861, for the best dissertation on *Excision of the Joints*.....HORACE G. SPAFFORD, Esq., Professor of Medical Jurisprudence in the Medical Department Lind University, was married in this city, on the 5th inst., to Miss ANNIE LARSON.

RENUNCIATIONS OF HOMŒOPATHY.—Under the head of selections in this number of the EXAMINER, will be found a letter from JOHN C. PETERS, M. D., of New York, for several years a prominent homœopathic practitioner and editor of the lead-

ing homœopathic journal in this country, formally renouncing all further connection with that pretended *system* of medicine. In the *American Medical Times*, for August 31st, we find a declaration, renouncing their further adhesion to homœopathy, signed by Ed. P. Fowler, M. D., Wm. Faulkner Browne, M. D., and Wm. O. McDonald, M. D., all heretofore well known as homœopathic practitioners in the city of New York. A similar declaration from most of the little-pill fraternity in this city, would bring their *professions* and *practice* more nearly into correspondence.

FURTHER EXPERIMENTS WITH KEROSOLENE.—In the absence of a report from the committee appointed at the July meeting of the Cook County Medical Society, to investigate the properties and actions of the new anæsthetic, kerosolene, it may be as well to put on record one or two of the experiments made with this agent on the lower animals, by the junior editor of the EXAMINER.

Expt. I. A full-grown, healthy doe rabbit was subjected to the influence of the vapor, administered on a cotton cloth. After inhaling about two minutes, during which the respiration became hurried and convulsive, the animal screamed loudly and continuously for more than a minute, followed by violent struggling, which, at the end of the fifth minute (the inhalation meanwhile continued), gave place to rapid involuntary motion of the fore-legs. The animal was now laid on its side, and the inhalation suspended, but the involuntary motion of the fore-legs was continued, the posterior extremities lying relaxed. At the end of the eighth minute (the second of the intermission), the involuntary motions had given way to attempts to regain its feet; breathing natural, though a little hurried, and vapor again exhibited. The struggling was at once renewed, followed by strong, clonic spasms of the extremities, varied by the rapid movements of the fore-paws, during which the hind-legs were rigidly extended; to this succeeded violent shivering of the whole body, respiration very quick and labored, eye-balls protruded. At the end of the twelfth minute, sensibility was yet perfect, the prick of a scalpel being instantly responded to. The animal now lying prone, the cloth was placed close under its nostrils, and two drachms of the fluid poured on, care being taken that it did not touch the nostrils. The irregular convulsive movements were again renewed, intermitting to fits of shivering, after one of

which the trunk was flexed backwards (opisthotonos), extremities extended and respiration ceased. On opening the thorax, ten minutes afterwards, the right auricle was found immensely distended, and still strongly pulsating, pulmonary arteries congested, and the other usual symptoms of asphyxia. The inhalation was continued nearly fifteen minutes, with about two minutes intermission, and at no time was there any anaesthesia.

Expt. II. A full-grown, young male rabbit was subjected to the vapor, by pouring half an ounce of the liquid into a common tumbler, into the upper part of which pussy's head was confined. For the first five minutes the phenomena were similar to those in the first experiment; but while struggling, his head was so far released as to allow him to lap up, probably, half a drachm of the fluid. Violent shivering fits at once supervened, followed by entire muscular relaxation, from which (the vapor being withdrawn), he recovered in four or five minutes, eating and running with perfect freedom. No anaesthesia.

Expt. III. The same rabbit, one week afterwards, was again treated to the vapor from the tumbler. Phenomena almost identical with those of No. I., death occurring in about fourteen minutes, with no intermission of the supply of vapor. Post-mortem revealed the usual symptoms of asphyxia. The blood coagulated very slowly in both instances. Ten drachms of kerosolene were used in the first, and not quite an ounce in the last experiment. Anaesthesia was not produced in either case, at any time before death.

MILITARY HOSPITAL TREATMENT OF GONORRHOEA.—The statement that "venereal cases constitute at least, one-third of the admissions into military hospitals," will, undoubtedly, suffer a large discount, when applied to the volunteer service,—for obvious reasons. And yet the frequent occurrence of "the transitory penalty of social indiscretion" among our troops, and the consequent annoyance, to say nothing of the disastrous possibilities, of crowded hospitals and weakened regiments, renders pertinent and valuable, at this time, the publication of any approved plan of treatment, even though obnoxious to the charge of gratifying "an unwholesome love of novelty."

Assistant-Surgeon MILES, M. R. C. S. L., etc., in Medical Charge, at Halifax, N. S., contributes a paper to the current No., *London Lancet*, detailing a plan of treatment, whose success he has abundantly tested for eighteen months, and in

some sixty cases; and for which he claims that, whilst it is scarcely open to an objection, it offers at once a speedy and effectual mode of cure, returns the soldier's name to the list of "effectives for duty," in the shortest practicable time, is the best suited for soldiers, and is least open to tampering and deceit. After establishing a soluble condition of the bowels, in a case marked by the usual symptoms: penis swollen and glans cherry-colored, tender, and looking excoriated; lips of orifice of urethra puffy; with an abundant, thick, slightly yellowish discharge; urine scanty, and the stream forked and painful in its passage, a blister, six inches by four, is ordered to be placed very high up towards the anterior and inner aspect of each thigh. The blisters are of the London Pharmacopœia, the plaster being spread rather thickly, and the surface afterwards sprinkled with acetate of cantharides, a wide margin being left on each side, of the blister. These are safely confined in place by a broad strip of adhesive plaster at each end. For convenience the blisters are generally directed to be applied at night, and no harm has ever come of it, and usually they are well risen by the morning. The patient is then ordered to take every four hours an ounce of the following mixture:—sulphate of magnesia, two ounces; carbonate of magnesia, four drachms; potassio-tartrate of antimony, two grains; tincture of hyoscyamus, two drachms: peppermint water, sixteen ounces. He is placed on spoon diet, with rice pudding for dinner, and a pint of imperial drink should he be thirsty. During the day he is directed to inject now and then a syringeful of cold or lukewarm water, according to the temperature and season of the year. The blistered surface to be dressed with lint dipped in castor oil (a favorite dressing with the men).

The immediate effect is not uniform,—in some cases the discharge is increased, with more scalding; in others, discharge is less, but thicker; in still others it ceases at once; the usual result is an aggravation of the symptoms for the first twenty-four hours; the only thing required, however, is a little patience combined with perfect rest, and these symptoms rapidly subside. The saline purgative is to be continued, and the patient is ordered half an ounce of gum arabic to be mixed with water, and used as a drink, whenever required, the imperial drink being continued if asked for. On the third morning after the application of the blisters, the discharge is noticed to be much diminished in quantity, the scalding in micturition is less, and the patient feels better. On the fourth day scarcely any discharge, and there is now no scalding. The blistered surfaces look raw, but are beginning to "skin," as

the men say. The saline purgative to be now given only three times a day. The next day perhaps there is a little running when the penis is squeezed, but no other symptom; his bowels are well open. To take the saline purgative (two ounces) every morning, and an injection of nitrate of silver, (six grains to the ounce) to be used at night. Sixth day: Blistered places skinned, though not firmly, and the surfaces are not sore. No sign of running is visible to-day, but there is an appearance as if of weeping at the lips of the urethra. Seventh day: No sign of discharge, the thighs have completely cicatrized, and the surface where they were blistered, is not the least tender. The man is discharged for duty, with one day's convalescent leave. This, though a suppositious case, illustrates the sort of treatment adopted. But a more favorable case than the above will happen. A lad may come the morning after the discharge appears, and in the early stage of the complaint very mild inflammatory symptoms are present. He is of temperate habits. In such a case, all that may be required are, rest and low diet, the saline purgative mixture, and as a local remedy, a small blister applied to the under surface of the penis. The blister should be about an inch wide, and from an inch to an inch and a half long, and be carefully fastened on by oiled threads. It is well to fasten a suspensory bandage, with some extra linen covering over the scrotum, so as to prevent the chance of vesicating it. If the blister rises properly, in a simple case of gonorrhœa taken thus early, I have had repeated instances of immediate cure by a single application, the discharge having completely ceased, with no recurrence at a subsequent period. In such a case, the blistered surface has healed (it is surprising the rapidity with which it does so on this spot), and the man has been discharged for duty on the fourth morning after admission.

THE SURGEONS OF THE NEW YORK EIGHTH.—The Washington correspondent of the *N. Y. Times*—a secular paper, which, alone of the hundreds published in the United States, gives to the profession a courteous attention and consideration,—speaks in the following glowing terms of the conduct of Surgeons FOSTER SWIFT and CHARLES DE GRAW, of the Eighth Regiment N. Y. S. M., at the battle of Bull Run. What these gentlemen did was no more than their duty, to be sure, and no more than did Buckstone, Allen and Williams, of Maine, Norvell, Powell, Winston, Griswold, Peugnet, Ferguson, Harris, Homeston and Swalm, of New York, Taylor, of New Jersey, Lewis, of Wisconsin, Stewart, of Minne-

sota, and Steinberg and Grey, of the regular army, on the same occasion; and no more, we firmly believe, than every medical man—who goes forth from the comforts and emoluments of a civil practice, with its unquestioned position and privileges, to the hardships, dangers and exigencies, the petty pay, the dubious rank and limited authority of military service,—will be ready and prompt to do. The quality of heroism demanded for such service must be higher than that of the mere combatant;—since to it there are none of the usual stimuli which attend martial life, robbing privation, and fatigue and danger of their worst features. The wild enthusiasm of the battle-shock must be sternly repressed by the surgeon who would do his duty calmly and fully; danger, suffering and death, in their most terrible and repulsive forms surround him; yet, his heart must not shrink, nor his nerve falter. No special mention is made in “Official Reports,”—no brevets on the field for meritorious conduct,—no incentive of promotion to nerve and sustain him. Are we not justified, then, in reprinting such unusual recognition of the usual conduct of our professional brethren?:—

We have enough of buncombe receptions, but of real approbation of true heroism, how much do we see?

Two men return to New York to-night who are, in the truest use of the word, heroes. These are the surgeons of the Eighth New York Regiment, whose officers deserted in many cases before coming under fire. They were in the Sudley Church; they arrived at it amid the hottest rush of the mad panic, but stopped to aid in taking care of the wounded, who had been placed in it. They were warned that the enemy were approaching; they heard the cry that the enemy were bayoneting the wounded, and giving no quarter; they were advised to leave by a United States officer, who told them the enemy would undoubtedly shell the church on the supposition that it would be held as a defensive position as long as possible, by our troops covering the retreat. This conviction was so strong with those who left last, as you will remember, that it was generally reported the church was shelled. But these surgeons said, simply, “*We cannot leave these bleeding men; it is our business to take care of them, and take care of them we must, no matter what becomes of us.*” They unquestionably made up their minds to die, and momentarily expected the falling of the first shell among them, until, while in the midst of an amputation, there was a rush of cavalry, and a horseman’s pistol was pushed in at the door, and a hoarse voice asked, “Do you surrender?”

“Certainly,” answered SWIFT, tying an artery, and not so much as raising his head from his business.

Would to God we had a few score such men as captains, and would to God we had a general who would blow from the cannon's mouth such sham officers as those who played soldier with the Fire Zouaves and the Eighth.

SUCCESSFUL OPERATION FOR DOUBLE CONGENITAL CATARACT AT THE AGE OF EIGHTEEN.—Dr. Welsh translates for the *Boston Med. and Surg. Journal*, the correspondence of A. M. CADE, M. D., with the *Bull. Gén. de Thérap. Méd.*, in which he details a successful operation for double congenital cataract, of eighteen years duration. The operation was by depresso-reclination, as M. CADE terms a mixed procedure, by which, before tipping the lens into the inferior and external part of the vitreous humor, it is depressed vertically until a semilunar opening appears in the upper fifth of the pupil; thus preventing, during the displacement of the cataract, both the falling of the lens into the anterior chambers, and the too immediate compression of the retina or choroid coat. On the eighth day the left eye was completely cured, and the right only occasionally obstructed by the still floating unabsorbed cataract. This, however, would doubtless be promptly absorbed.

In addition to the rarity of operations for congenital cataract after the age of puberty, we quote the case partially for the interesting phenomena resultant on the sudden acquisition of vision after eighteen years blindness. M. CADE says:

The first sensation of light produced so lively a sensation, that the eyes were seized with convulsive movements, and it was only after having established twilight in the room, and after numerous oscillations, that the globes of the eyes maintained their equilibrium. When the organs of vision were accustomed to the light, I attempted some experiments and observed the following facts: when an object is presented to Mdlle. Louise, she can neither appreciate its form or color; she is obliged to touch it, to tell its name or use. The laws of visual accommodation are lost for her; thus, she judges distances so inaccurately, that she constantly places her hand beyond the objects she wishes to grasp. Besides, this young lady has been so in the habit of using the sense of touch to supply that of sight, that, after having the name of an object pointed out to her, she feels the need of taking hold of it and manipulating it in every direction, so as to fix the form of it as well as its other characteristics in her memory. When an object has been presented to this double inspection, it remains impressed on the memory, and Mdlle. Louise can name it by the exclusive use of her eyes, even four or five days after a first trial.

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N. S. DAVIS, M. D., Editor,---FRANK W. REILLY, M. D., Ass't Editor.

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Original Contributions.

ARTICLE I.

LECTURES ON MILITARY SURGERY:

DELIVERED DURING THE SUMMER COURSE OF THE MEDICAL
DEPARTMENT OF LIND UNIVERSITY.

By E. ANDREWS, A. M., M. D.,

PROFESSOR OF SURGERY; SURGEON TO THE MERCY HOSPITAL; TO THE CHICAGO DISPENSARY, ETC.

LECTURE SIXTH.

HOSPITAL GANGRENE.

When a large number of wounded are placed together in hospital, without sufficient ventilation, or careful dressing, the most disastrous results speedily ensue. Hospital gangrene and traumatic erysipelas break out in an epidemic form, and make fearful havoc among the patients.

The discharges from gun-shot wounds are generally copious, and often offensive, from the presence of gangrenous tissue in the wound. If, therefore, the number of patients is too great for the supply of attendants, the pus will inevitably run down upon the bedding, and by decomposition become horribly foul and offensive. If, in addition to this, the hospital is overcrowded and insufficiently ventilated, the men are constantly bathed in a foul and poisonous atmosphere. Experiment shows that, not only is the air full of ammonia, sulphuretted hydrogen, and other gaseous products of putrefaction, but also is charged with solid particles, such as dried pus-corpuscles, microscopic shreds of dead and dessicated tissues, and

excretions. The inhalation from day to day of such an atmosphere, speedily changes the diathesis of a patient from a healthy to a feeble aplastic one, which is ready to take on any kind of disease of the asthenic type. At the same time, either the chemical decomposition of dead animal matter, or else the depraved action of living tissue gives origin to a specific poison capable of being wafted on the air of the hospital, and carried from patient to patient, and spreading the terrible hospital gangrene. This disease generally manifests itself on the edges of a wound, in the form of a small gray or dark gelatinous looking slough of a semi-transparent appearance, as though it were soft, and capable of being wiped away; if however, it is touched with a sponge for the purpose, it is found adherent and possessed of sufficient consistence to withstand the effort. Sometimes the disease begins as a dusky red swelling, like a boil, with a pustule upon it, which breaks and becomes the starting point of the gangrene. The affected part becomes painful. The wound is at first dry and irritated, but afterwards discharges copiously an offensive, unhealthy pus. The edges are apt to be puffed up with a red, erysipelatous looking inflammation, suggesting the idea that the poison present is the same as that of erysipelas.

On the second day the slough will be found enlarged, and it continues to spread in many instances, without any definite limitation, until death. The patient has a low adynamic fever, and dies with symptoms resembling typhus.

When the disease makes its appearance in a wound, it is speedily spread by infection to other patients, and in a short time makes a fearful destruction of life.

The most important part of the treatment in this disease, is prophylactic. It will be almost useless for the surgeon to exhibit particular remedies to the cases as they occur, if he allows the constitution of his men to be undermined by the breathing of poisonous effluviæ. The first thing, therefore, to be seen to, is ventilation and cleanliness.

Ventilation is to be accomplished by proper construction of the hospital. This should be such as to allow, at least, one thousand cubic feet of air to each patient. There should

be a very free circulation of air by openings in the sides of the building, near the ground, and others above near the eaves. The foul air will then readily escape at the upper openings, and fresh enter below. If a private house is taken for a temporary hospital, the windows and doors will often suffice for openings; but if there is any doubt about it, large apertures should be at once cut in the walls.

Another expedient which increases the amount of fresh air to each man, is to disperse the patients, so as to have as few as possible in a ward; but, if, in spite of all feasible precautions, the disease makes its appearance, some decisive action must be taken. If no other method offers, the hospital must be evacuated, and the inmates be lodged in the open air, under trees and awnings, until, from improved circumstances, the epidemic is subdued.

Cleanliness is a thing which can only be attained in crowded hospitals by vigilant oversight of the surgeon, and hard work by his subordinates. Wounds will require dressing from one to three times a day, when actively discharging pus, and there is no way to accomplish the work, but by hard labor. It will generally be found best to avoid poultices, as they confine the pus too closely to the tissues; and to make a free use of water dressings. If there is any erysipelas or hospital gangrene, the same sponge should not be used upon two patients, as from its intricate structure it is impossible to cleanse it thoroughly, and it is liable to carry contagion. Many military surgeons exclude sponges from the hospitals entirely, and use pledgets of tow and cotton in their place, throwing them away at each dressing.

The surgeon also should bear in mind, that no probes or other instruments which have been used in a case of this disease, should ever be used on another patient, until they have been thoroughly cleansed by washing, and then dipped in boiling water. There is no doubt whatever, that some surgeons have carried death around their own hospitals, by their want of care in cleansing their instruments. In short, every precaution should be taken, which is required in the presence

of a deadly contagious disease, which is capable of being propagated, both by inoculation and infection.

The curative treatment is both local and constitutional; the objects being to destroy the diseased tissue with its poisonous products, and to correct the abnormal diathesis from which it sprung.

The best local application is strong nitric acid. To apply it thoroughly, the sound integument around the slough must be coated with cerate, to protect it from cauterization. If the slough is thick, it must be cut away with the scissors, and then the fuming acid applied by means of a pledget of lint tied to a stick, dipped in the acid and then pressed into every part of the wound. Chloroform may be given to obviate the pain. The acid converts the diseased tissue into a firm, hard coating, which, in a few days, sloughs off and leaves a healthy ulcer beneath. If, however, any part of the surface still appears diseased, the cauterization must be repeated until normal granulations alone present themselves.

Some American surgeons in the Crimean war made use of creasote in the same manner, with excellent effect, and with less pain to the patient.

The constitutional treatment consists: first, in restoring the sick to a perfectly pure atmosphere and to entire cleanliness; and second, in the use of such tonics as will help them to resist the effects of the poison. The remedies which have the best effect for internal use, are quinine, nitric acid, and muriated tincture of iron. The latter is in many respects the most useful, because the system will tolerate it in larger quantities, without irritation. It should be given in doses of twenty or thirty drops every two hours, night and day.

Ammonia, which is often prescribed with a view to its stimulating effect, should be carefully avoided, because the system is already saturated with it, and ready to fall into dissolution from the deleterious influence of the alkaline diathesis.

ERYSIPELAS.

This is another scourge of war surgery. It falls like a pestilence upon the wounded, carrying off hundreds of men, who, in civil surgery, might have recovered with ease.

The causes of erysipelas in the form seen in camp, are the same as those which produce hospital gangrene. Indeed I think that the poison is of the same nature only a little less powerful, so that it does not as promptly destroy the life of the tissue on which it lodges. All that I said, therefore, respecting the causes of hospital gangrene, may be applied without exception to the etiology of erysipelas.

It is unfortunate that the identity of several forms of this disease is so obscurely recognized by many writers. Thus, in a list of surgical cases, it is common to see one death ascribed to erysipelas, another to absorption of pus, or purulent infection, another to metastatic abscess, etc. Now all these are one and the same thing, and that thing is *erysipelas*. Pyæmia comes from aplastic phlebitis, and that form of phlebitis which produces pus in the veins and kills the patient, results always from the presence of the erysipelatous poison. A similar observation may truthfully be applied to the terms metastatic abscess and purulent infection. In fine, if your hospital is clean, the air pure, and the constitution of the men in a plastic diathesis, there will be very little erysipelas, phlebitis, pyæmia, absorption of pus, or metastatic abscess.

The symptoms of traumatic erysipelas are unfortunately too familiar to every surgeon. A few days after a surgical operation, perhaps a very brilliant and important one, a little puffy redness is seen upon the edges of the wound. The lymphatics leading from it, shoot red and tender streaks up to the nearest lymphatic glands. The glands thus injected with poison, become swollen and tender. The redness and swelling about the wound, extend rapidly, accompanied with a good deal of burning pain. The adhesive process in the wound is stopped, and an unhealthy aspect supervenes. Very often the limb affected swells enormously; the areolar tissue beneath the skin mortifies, and when exposed by an incision, presents the same gray gelatinous appearance which is observed in hospital gangrene. The skin itself being cut off from nutrition beneath, mortifies, and the extension of the disease often destroys the patient. After death, dissection brings to light, in the same patient, phlebitis, pyæmia, and

metastatic abscesses. The constitutional symptoms are of the same adynamic typhous character as in hospital gangrene.

From what has been said, it is obvious that the prophylactic treatment, is chiefly good air and thorough cleanliness. The precautions before mentioned for avoiding contagion and infection, are also to be fully observed. In civil surgery, I have made extensive use, for three years, of muriated tincture of iron, as a prophylactic. Having observed the powerful effect of this remedy in cutting short the disease after it has commenced, it occurred to me to use it in advance, to prevent the attack. I have therefore given it with this view, after all my cutting operations, both in the hospital and in private practice, and the result is, that *since I have commenced this precaution, no patient of mine has died of phlebitis, pyæmia, nor any other form of traumatic erysipelas.* I cannot but think, therefore, that the adoption of the same plan would greatly reduce the mortality in military hospitals. But this medication is by no means a substitute for thorough ventilation and cleanliness. If the fetid gases and foul discharges of a thousand wounds are allowed to saturate the blood of the hospital inmates with poison, let no surgeon think that he can evade all the consequences by pouring into their rotten systems, any medical preservative. Some, it is true, may be cured even then, but very many will die.

The curative treatment of erysipelas is now pretty well settled. Taking as a clue, the fact that it is a disease of an aplastic nature, in which an excess of alkaline secretions is present, tending by that excess to dissolve and break down the tissues, we readily see why all experience points to the use of such remedies as have the power of destroying alkaline products. By far the most efficient remedy in erysipelas, is per-chloride of iron, usually given in the form of the muriated tincture. Per-chloride of iron is an unstable compound, and presented to any alkaline fluid, it immediately neutralizes it by yielding a large quantity of chlorine. Hence, its prodigious power of reducing to a solid form, various alkaline fluids of the body, such as pus, blood, and serum. When given freely, it is capable of completely changing the diathesis of a

patient within thirty hours from a purulent to a plastic condition. Most striking illustrations of this fact have occurred in my practice.

Two pathological conditions are necessary to produce an erysipelas. One is an alkaline, and therefore aplastic diathesis, marked by a peculiar tendency to produce serum, or pus upon the slightest irritation, and by a striking incapacity to limit its spread by any plastic barriers. The other condition is the presence of a specific poison of an irritant character, capable of inoculation, and which produces the inflammatory action. If both these conditions be present, the patient has erysipelas; if either be absent the disease cannot exist. The per-chloride of iron acts directly, I think, upon both conditions. It rapidly neutralizes the alkalies and induces a plastic diathesis, and the chlorine destroys the organic poison. In order to get this decisive influence, it is not enough to give ten or fifteen drops of the tincture a few times a day. Twenty or thirty drops must be given every hour or two, until the effect is produced. The extreme rapidity of the disease requires the utmost promptitude of action.

Other tonic remedies have also a good reputation, especially quinine given in large and frequent doses. The mineral acids are also useful, but the vegetable acids seem to be inert when given internally, because being organic, they are digested and destroyed in the stomach.

For local treatment, one of the most useful things is to make free incisions for the evacuation of the poisonous serum and pus. Next to incision, the abundant application of iodine or nitrate of silver is valued by our authorities. If iodine is chosen, it should be dissolved in glycerine, and kept constantly applied. The painting of the surface with the tincture, lacks efficiency, because the alcohol evaporates in a few minutes, leaving the iodine dry and in an unfavorable form for absorption. In domestic practice, the cranberry poultice is often used with good effect, the acid of the berry serving to neutralize the alkali of the diseased part.

Cold water is much less efficient in this disease than in sim-

ple inflammation, and poultices, unless of some acid or astringent substance are injurious.

In general the best treatment is a very free use of quinine and tincture of iron internally, and a few incisions, with glycerine and iodine externally.

ARTICLE II.

RUPTURE OF THE UTERUS.

Reported by JAS. S. KING, M. D., of Lemont, Ill.,

LATE RESIDENT PHYSICIAN ST. JOHN'S HOSPITAL, CINCINNATI, OHIO.

August 7, nine P. M.—Called to see Mrs. Mc——, a robust Irish woman, æt 34, in her second confinement. She said, that at five A. M., without any pain accompanying it, “the bag of waters had broken,” since which time she had had sharp cutting pains at intervals, but still not sufficient to cause her to discontinue her usual domestic duties. During the half hour previous to my arrival, the pains had been slightly increasing. On making a vaginal examination, I found the parts of natural temperature and moist, but could not reach the os uteri. I retired, telling the nurse to call me as soon as I was needed. At half-past eleven the nurse called me, saying that Mrs. Mc—— had been having very good pains during the past hour, and that she had vomited several times. I now made another examination, and to my surprise, found the head of the child engaged in the superior strait. She continued to have pains at intervals of from five to ten minutes during the night, resting well between them; but I was surprised and perplexed to find that the head did not advance any. After a close examination, about five A. M., August 8th, I concluded that the child was dead, and that, together with the early escape of the liquor amnii, was the cause of the non-progress.

At six A. M., I left her, and returning at eight o'clock, found that there had been no change in the character of the pains, nor in her general condition; her pulse was about natural;

surface moist, and she appeared in good spirits. Upon a close examination of the uterus, through the abdominal walls, I now detected an inequality of its surface, from which, together with a greater enlargement than usual, I concluded that perchance there were two children. From about nine o'clock till half-past eleven, the pains were shorter and at greater intervals, when they again increased in force and frequency, and so continued for about an hour, but without changing the position of the head, when they again diminished. I now sent for Dr. H. G. Hall, of this place, in consultation. After making an examination, and noting for a time, the character of the pains, which continued to grow less in force and frequency, Dr. H. recommended the use of ergot, in which I concurred. We administered it in the usual dose, about two P. M., and again in half an hour. The pains continued to diminish gradually until at three o'clock, (when we administered a third portion of ergot,) they had almost ceased; by four o'clock all uterine contractions had been suspended; position of child's head unchanged. She now complained of cramps and pain in right thigh, together with a feeling of uneasiness in abdomen. Pulse 90 per minute; surface of natural temperature and moist. At five o'clock we left her; returned about seven; found that there had been no return of uterine contractions, but that the trouble in abdomen and thigh was increasing. At nine o'clock we concluded to give her an opiate to quiet pain and cause her to sleep. Pulse now 100 per minute; surface of natural temperature. The opiate did not have the desired effect, the patient still continuing to complain of the "peculiar feeling" in her abdomen, and by ten o'clock she had entirely lost the use of her right leg; about the same time she became delirious; pulse now 112 per minute, and of less force; surface slightly below natural temperature. At eleven o'clock we ordered brandy to be administered. By one o'clock A. M., August 9th, her pulse had increased to 130 per minute, and feeble; surface cold; expression of countenance anxious. We now commenced giving ammonia carb., continuing also the use of the brandy, and sent a messenger to Lockport (seven miles,) for obstetrical instruments. He returned about

seven A. M., but she was not now in a condition to be delivered, for notwithstanding the free use of the brandy and ammonia, she had continued to sink. Pulse now about 170 per minute, feeble and fluttering; respiration hurried and difficult; surface cold and clammy; countenance pale and ghastly; she had at intervals, since about four o'clock, vomited greenish matter. At the request of her husband, we now sent for Dr. Bacon, of Lockport, although we did not think she would live till his arrival. At eight o'clock she had a slight convulsion, and during the next half hour, she vomited several times, "coffee-ground matter," and at nine o'clock, died.

Post Mortem, August 9th.—At half-past one P. M., I proceeded to deliver the child, assisted by Doctors Hall and Bacon. Upon opening the abdomen, we were surprised to find a very large male child in its cavity, entirely without the uterus. After removing a quantity of sero-sanguineous fluid, and carefully removing a portion of intestine from over the child and uterus, we found that there was a rupture of the uterus, commencing about half an inch above the os uteri on the right side, thence extending up the side about two-thirds the length of the uterus, involving the contiguous peritoneum; the child had escaped through this rent into the peritoneal sac, where we found it in the following position: lying upon the right side of the abdominal cavity, arms folded over the chest, knees drawn up to the abdomen, back curved, head firmly engaged in the superior strait, with the posterior fontanelle to the right sacro-iliac synchondrosis, face to the left acetabulum. On removing the child and examining the uterus carefully, we found that its structure was not altered; it was of a purplish color; the edges of the rent jagged and uneven. The placenta, which we removed, was attached to the left side of the uterus. The os uteri was dilated just sufficient to admit of the introduction of the index finger.

REMARKS.—In the case under consideration, we find an absence of nearly all the symptoms of complete rupture of the uterus as laid down by our works upon obstetrics. In this case the rupture evidently took place during the time inter-

vening between the first and second examinations, and I learn from the nurse, that she did not complain of anything unusual during that time, and that her pains were not particularly strong. There was no immediate suspension of labor-pains; no hæmorrhage whatever, from the vagina during her labor, neither was there when the liquor amnii escaped. The child's head neither receded nor advanced from the time of my second examination to the termination of the case. The collapse did not come on rapidly, but on the contrary, gradually, as will be seen by noting the symptoms. And as there was an absence of the general symptoms indicating a rupture, so was there of anything in the woman's previous history, to cause us to suspect such a calamity. Her first labor had been short, and without trouble. During her last gestation, she had enjoyed excellent health, not a symptom pointing out any disease of the uterine walls; her pelvis was not contracted, neither were the pains at the beginning of her labor severe.

ARTICLE III.

STRANGULATED HERNIA.

By W. A. GORDON, M. D., Wausau, Wis.

In the month of September, A. D. 1858, I was called eight miles distant, to see Mr. McC., said to have been attacked with bilious fever. Upon my arrival, I found a young man (farmer,) aged 24 years, of sanguine temperament, and a vigorous constitution. He had been taken suddenly ill three days previous to my visit, with very severe pains in his bowels; slight nausea and vomiting, with a considerable degree of fever. Symptoms now present were, quick, full pulse, 124 per minute; epigastric region and abdomen somewhat tender; frequent vomiting; great thirst and general lassitude. I ascertained that there had been no fecal evacuation for the past few days. Pills and castor oil had been given, but with no other effect than increasing the irritability of the stomach. A brief investigation convinced me that I had something more to deal with, than a common remittent fever, and the circumstances of the case led me to suspect a

hernia. But upon further inquiry, I could elicit nothing from the patient to corroborate my opinion. I must confess that I was not a little embarrassed upon receiving such information, and was not satisfied to reveal my diagnosis to the anxious friends, until I was thoroughly convinced as to the true nature of the case. I proposed an examination, and accordingly passed my hand over the inguinal region and scrotum, and as I had previously anticipated, found considerable enlargement of the left groin, and corresponding testicle. I expressed some astonishment to the patient that he had remained ignorant of this swelling during his illness; but said he, "It has been there these ten years." Judging from his statement of the usual size of the tumor, it was now considerably enlarged; not sufficiently so, however, to attract his attention previous to my examination, which revealed a case of oblique inguinal hernia. From its nature and long standing, I concluded that the original hernia was protrusion of the omentum, and the cause of present difficulty was produced by a portion of intestine being thrust forward in the same channel, induced by powerful action of the abdominal muscles and diaphragm, in the act of loading hay on the day previous to his illness.

The bladder was evacuated by means of the catheter, (there having been no spontaneous flow for twelve hours,) when I proceeded in the usual manner to reduce by the taxis. After manipulating about twenty minutes, the tumor was reduced nearly one-third in size; and any further endeavors at reduction seemed unavailing. It now occurred to me that perhaps the new protrusion was reduced, as the patient expressed himself as feeling relieved, and thought that the tumor was about its usual size. I ordered the patient to roll on either side, at the same time keeping the pelvis a little elevated, hoping that the gravity of the viscera would entirely retract the intestine from the canal, providing the hernia was not already reduced.

I remained with the patient about two hours, when he seemed so comfortable, I ordered the following enema:

R Chlor. sodium,
 Sap. cast., - - - - āā ʒj.
 Aqua fervent, - - - - Oj.

One half to be used at the temperature of the body, and if no evacuation in two hours, administer the remainder. Hop fomentations in the meantime were applied to the abdomen. I left my patient comparatively easy, and with sanguine hope of finding him next day in a fair way for recovery. It was twenty-four hours before I was again able to see him, when to my sad disappointment, I found every symptom aggravated.

He had clandestinely been walking about his room, and readjusted the compress and bandage to suit his own liking. I now requested counsel, and forthwith dispatched a messenger for Dr. S. Marks, of Steven's Point, a distance of fifty miles, at that time the nearest reliable counsel. In the meantime, large doses of opium were given with the view of obtaining its specific effects, hoping we might yet succeed without an operation. It was full eighteen hours before the doctor arrived; and when we repaired to the residence of the patient, it was only to find him in a still more unfavorable condition. But little of the opium had been retained, and there was now more or less vomiting of bile, and stercoraceous matter; scanty urine; abdomen somewhat tense and painful; quick, wiry pulse, and a great restlessness and prostration. Attempts were again made to reduce by the taxis, as the tumor was much larger than when I last saw the patient. Our efforts seemed quite effectual in reducing its size; and from the relief which it afforded, we arrived at the conclusion that the hernia was again reduced, and applied dressings accordingly. Ordered hop fomentations to the bowels and tumor, and after six hours, if the patient was comfortable, then clysters as I had previously ordered.

We remained with the patient during the night, and at five o'clock A. M., a copious evacuation took place, containing quite a quantity of fecal matter. Vomiting had very nearly abated during the night, and as the patient expressed himself in the morning, "he felt better all over." His pulse was now 100 per minute; quite soft and comfortable; less tenderness of the abdomen, and no vomiting for four hours previous to the discharge. We examined the tumor before leaving; and

anticipating no further trouble on the part of our patient, left him the following:

R Nit. potassa.
Pulv. doveri, - - - āā ʒj.
Hyd. submur. - - - grs. x.
M. div. in pulv. no. vj.

One to be given every four hours. This prescription was to be followed by a mild dose of castor oil.

Upon my arrival home, I was called in an opposite direction, and was unexpectedly detained, so that it was quite impossible for me to again visit the patient for thirty-six hours. I had received two dispatches from there during this time, and upon my arrival, I was not surprised that the friends had been alarmed. The castor oil had been rejected, and from that time he had been vomiting, which was now superceded by hiccough; quick feeble pulse; cold sweat, and a decided hippocratic face.

To again send for counsel, which would consume, at least, ten hours, rendered the chances of the patient, (if he had any,) entirely hopeless; and on the other hand, to operate alone, and have the patient die under the operation, was indeed anything but a pleasant thought. It was apparent that he could live but a few hours at most, and the chances for him to survive the operation were extremely doubtful. After a few moments' consultation with the friends, it was decided that the operation should be immediately performed. With no other assistant than a neighboring farmer, the patient was anæsthetized and the operation commenced, by making an incision along the axis of the tumor about four inches in length, commencing mid-way between the internal and external rings, and extending to the middle of the scrotum. The coverings were successively raised with the forceps, and the apex of the elevated portion, slightly nicked, to facilitate the introduction of the director, which guided the bistoury in cutting through the different layers to the extent of about two inches, when arriving at the sac, it was found firmly attached by means of old adhesions on all sides.

It was evident that more or less dissection was necessary,

and the coverings were now cut through to the full extent of the original incision. About three ounces of serous fluid had gravitated to the lower extremity of the tumor, affording a good point for opening the sac. The omentum was protruded about three inches through the external ring, indurated and surrounding the spermatic cord about two inches. It was very much distended with gas, and presented a dark purple color. Fortunately we succeeded in nicely separating the gut from the sac, but in dissecting up the diseased omentum and detaching it from the spermatic vessels, it was unavoidably mutilated, so that it became necessary to cut away about two and a half inches. The dissection involved three small arteries, (branches of the superior mesenteric,) which required the ligature. The stricture was now divided, the intestine returned; and the portion of sound omentum to which were attached the ligatures, left in the external ring, thereby affording free exit for the discharge through the external wound, which was dressed with interrupted suture and adhesive straps. Morphine was given to allay pain, and milk-punch as a stimulating and nutritious diet. This treatment was continued twenty-four hours, when the patient seemed to have rallied sufficiently to admit of the administration of a cathartic. We accordingly prescribed *ol. ricini*, ʒj.; *ol. limon.* gtt. x, which operated very kindly in about four hours.

There remained some tympanitis and tenderness of the abdomen, accompanied with great debility, for which the following was prescribed:

R	Hyd. submur.,	-	-	-	grs. xij.
	Pulv. opii.,	-	-	-	grs. vj.
	Quinine sulph.,	-	-	-	grs. x.
	[M. div. in pulv. vj.				

One of these powders to be given every four hours, and beef-tea for nourishment. This treatment was continued for three days, when the specific effect of the alterative manifested itself, and simultaneously the disappearance of the tenderness of the abdomen.

On the fifth day, subsequent to the operation, the wound was secreting laudable pus, and the tenth day, the ligatures

were removed. The patient now improved rapidly, and six week from the time of the operation, he called at my office for the proper adjustment of his truss, which (I will here remark,) he has made no use of for the past twelve months,—feeling that he is permanently cured.

The remarkable features in connection with this case are, 1st, the recovery of the patient; and 2d, the radical cure of the hernia.

To my own mind, it was one well calculated to deceive even the more experienced surgeon; and the combined circumstances which deferred the operation until little or no hope remained, rendered the case one of more than ordinary interest.

ARTICLE IV.

REPORT ON THE SANITARY CONDITION
OF THE
CITY OF CHICAGO.

Prepared for the Regular Meeting of the CHICAGO MEDICAL SOCIETY, held Sept. 20th, 1861.

By N. S. DAVIS, M. D., Member of the Sanitary Com.

Since the appointment of your committee, at the annual meeting of the Society in April last, the general health of the community has been good. The city has been visited by no epidemics; and the prevalence of ordinary sporadic and endemic cases of disease, has been less than the average of the last six years. This is not owing to any superior cleanliness of streets or other sanitary measures adopted by the city government, but is undoubtedly owing to the small amount of hot, sultry weather during the past summer. From memoranda made during a series of years, it appears that in this locality, we usually have the commencement of high summer temperature between the twentieth of June and the tenth of July, and the commencement of the ordinary endemic diarrhoea, cholera morbus, and cholera infantum, dates at the same period of time. This year, however, we had no high summer temperature until the very last days of July and the

first week in August. Then we had eight or ten days of oppressively hot weather, with a prevalence of south and south-west winds. This was succeeded by a severe storm from the north and north-east, and the continuance of a comparatively low summer temperature up to the present time. From the records of mortality, as well as from present observations, it appears that the annual prevalence of bowel affections, especially among children, usually dates its commencement with the first week of high temperature during the last of June, or first of July, and they continue more or less severe until past the middle of September. This year, however, according to my own observations, attacks of diarrhœa and cholera morbus, whether in children or adults, were much less frequent than usual, during all the month of July. The correctness of this is sustained by the diminished mortality of that month, as compared with previous years. Thus, the mortality of July, 1860, was 288, while that of July, 1861, was only 239. Another feature worthy of careful attention is, that while the number of cases of diarrhœa and vomiting occurring during July was much less than usual, there was a greater tendency to take on the form of dysentery. So manifest was this tendency, that in almost every case which had continued three days or more, the skin was dry, the pulse accelerated, and the intestinal discharges mixed with mucus, and not unfrequently streaks of blood. On the accession of the hot, sultry weather during the first week of August, attacks of diarrhœa and cholera morbus, especially among young children, became rapidly increased, both in frequency and severity; and in a few cases, symptoms of collapse were early manifested. During that period, several cases of "*sun-stroke*" were reported in the papers, some of them fatal. None came under my observation, however, and from some inquiries, I am inclined to think that most of those reported in the daily papers, were affected more by *whisky* than the sun.

During the brief period of high temperature alluded to, I saw three cases in adults, strongly resembling spasmodic cholera. The violent vomiting and purging of serous fluid, was accompanied by cramps in the muscles of the extremities :

husky voice; blueness and corrugation of the skin; sunken eyes; full pulse, and coldness of surface. Only one of these cases terminated fatally. Since the storm that abruptly terminated the brief period of high temperature in the early part of August, intestinal affections have assumed much the same character as they exhibited during the middle and latter part of July; that is, the *number* of attacks has been less, with a greater tendency to dysentery. During the last three weeks primary attacks of diarrhoea or vomiting in children have been rare, while cases of ordinary dysentery among adults have been more frequent. Most of the cases of dysentery have been mild and easily controled by ordinary remedies. Within the circle of my observation, the summer has been unusually exempt from fevers of any kind, having hardly met with a well-marked case of continued fever previous to the first of September. Since that date, cases of typhoid or enteric fever have been gradually increasing in frequency. They have been mostly mild and devoid of unusual features. Within the last two weeks I have met with several cases of well-marked typhus. All but one, however, belonged to the same family. This family had recently moved into the city from a miserably constructed shanty, in which they had been living, on the open prairie during all the summer. The mother and five children were all prostrate with the disease. The father and the youngest child, a nursing infant, were the only members of the family exempt. Most of them had been two weeks sick, without any medical treatment, when I was called to see them. By the internal use of chlorate of potassa, and a fair supply of milk and animal broth, three of them have slowly recovered. Two of the children still remain in a feeble state from the continuance of a moderate diarrhoea, after apparent convalescence from the general fever.

During the week of very hot weather near the first of August, I was called to an unusual number of cases of convulsions in children. I also noticed during the same time, a peculiar manifestation of nervous and cerebral symptoms in children affected with diarrhoea. In some, who had been much prostrated by the excessive evacuations, the functions of

the brain became exceedingly depressed, especially during the afternoon of each day. Between one and three o'clock, p. m., they would fall into a partially comatose condition, the face pale; the eyes partially closed; the chin dropped; the respiration slow and sometimes sighing; the pulse feeble; and the pupils moderately dilated. From this state, it was difficult to arouse them, for five or six hours. In a few instances, instead of this dormant, or partially comatose condition, there was great restlessness; a constant rolling of the head; tossing of the limbs; moaning, etc., with dilated pupils; but *sunken fontanelle*. These symptoms were evidently owing to cerebral exhaustion, produced by the combined influence of excessive evacuations and an unusually high temperature. They were best relieved by tannate of quinine, chlorate of potassa, and diffusible stimuli, aided by such anodynes as were necessary to control the intestinal evacuations.

In addition to the cases of diphtheria reported verbally at the meeting of the Society in July, I have met with four others, the last of which occurred only a few days since. They presented nothing worthy of notice, except that one of the cases occurring in the person of a young lady, was followed by paralysis of the fauces, rendering deglutition awkward; causing liquids sometimes to regurgitate through the nostrils, and giving to the voice a very unpleasant *nasal* sound. The diphtheritic inflammation was only of the average degree of severity, and was accompanied by only a moderate degree of swelling and ulceration. My attention was not called to the paralyzed condition of the fauces until some two weeks after all *appearances* of inflammation had disappeared from the neck and throat. There was a moderate degree of general debility, but the patient was more annoyed by the alteration of her voice than anything else. Under the influence of the following prescription, coupled with a plain but nutritious diet, and moderate exercise in the open air, the paralysis entirely disappeared in about two weeks:

R	Strychnia,	-	-	-	grj.
	Nitric acid,	-	-	-	ʒj.
	Water,	-	-	-	ʒij.

Mix, and take a teaspoonful in sweetened water, before each meal. I have directed the same treatment in five or six cases of paralysis following diphtheria, and with like success. In closing this report, I would call the attention of the Society to the fact, that reports of deaths are frequently made, in which the cause of death is said to be "teething."

Is there any such disease as "teething?" If so, will some member of the Society inform us of its symptoms and pathology?

ARTICLE V.

A CASE OF PERIODICAL STRABISMUS.

By F. N. SMITH, M. D., LaHarpe, Ill.

A son of Mr. Brockway, of this place, aged four years, was attacked a year ago last March, with dysentery. He only suffered from it about a week. At the time convalescence from this disease commenced, he became affected with convergent strabismus. This caused so much anxiety on the part of his parents, that they consulted their physician with reference to it. He prescribed alteratives and tonics. Under this treatment, the strabismus gradually subsided, and I believe he was considered perfectly free from it, for three or four weeks, when it returned, but periodically, occurring on every alternate day. He was now treated with anti-periodics. Quinine was first used,—this failed. Arsenic and strychnine were successively used, without any benefit ensuing, though the latter remedy was given till its constitutional effect was produced. All treatment was then suspended. He has taken nothing for over a year. Up to three months ago, the strabismus continued much the same, strictly periodical. The child's health has continued good, with very slight exceptions, from the time of attack of dysentery alluded to in the outset. His mother says he appears more fretful on the day his eyes are affected, than on the preceding day. Of late, the strabis-

mus has shown a tendency to occur every day. In fact, occasionally, for several days in succession, his eyes will be affected every day, with scarcely any difference in their appearance; then for some weeks, perhaps, the periodical character of the affection will be prominent. His appetite is excellent, and he sleeps well. His head is of good size, and his body well developed.

I submit the questions: What is the cause of the periodicity in this case? Is it connected with malaria? If so, why does it not yield to the most powerful anti-periodics?

The especial object of this article is to elicit comment on this singular case, in regard to its cause and treatment.

I have two melanotypes of the little boy; one taken on a day on which his eyes were affected, and the other on the following day.

The Clinique.

CHICAGO MEDICAL AND SURGICAL DISPENSARY.

Service, Prof. E. ANDREWS, Attending Surgeon.

Reported for the EXAMINER.

Lithotomy.—At my last clinical lecture, I sounded in your presence, a patient for calculus, and discovered a stone which I judged to be somewhat over an inch in diameter. To-day I shall bring the same patient before you, and perform the operation of lithotomy, or in solid Saxon words, “cutting for stone.”

The first thing to be considered in relation to this operation, is the preparation of the patient. For this purpose you will first consider his general condition, particularly as to the presence of any aplastic diathesis. Experience shows that there is comparatively little danger of an acute plastic inflammation of fatal severity, hence, it will seldom be necessary to prepare

the patient by reducing measures, such as purgatives, mercurials, and venesection; but on the other hand, there is great danger of an aplastic diathesis, which prevents the rapid gluing up and glazing over of the areolar interstices along the wound, and hence, allows a fatal infiltration of urine.

The most unmistakable sign marking the presence of this aplastic diathesis, is the aplastic inflammation resulting from any little pimples, scratches, or cuts which the patient may have. If any of these be present, and they show an unusual tendency to a weak suppuration, and an indisposition to heal readily, it is a bad sign, one which requires treatment before an operation is ventured on, for in such a diathesis the occurrence of urinary infiltration is greatly to be feared.

The best medicaments for the aplastic condition are the tonics. The patient should be fed liberally upon fresh meat and other substantial diet, and take per chloride of iron and quinine, freely, until the diathesis is thoroughly changed.

There are some neglected children in whom the presence of the stone keeps up incontinence of urine, by which their clothing is kept foul and their bodies made constantly to absorb ammoniacal and other effluvia, thoroughly impairing the plasticity of the blood. In such cases it will be best to put the patient into a course of thorough cleanliness, where he will have the purest of fresh air, as well as tonics, for two months before an operation is ventured upon. In doubtful cases I would even test the patient's plasticity by making some slight incisions upon the thigh, and watching their appearance during the cure. It may be well to remark here, that it is not the reddest faces which mark the best constitution for operative purposes. The clear but solid white skin, such as is often seen in rheumatic patients, is a far better indication to a surgical eye, than the spongy, juicy redness of a toper's flesh.

Before the operation it is requisite to clear out the patient's rectum with an enema, otherwise the distention of that passage may bring its circumference in the way of the knife.

For the operation, you need four assistants, although you can get along in an emergency with two. One is to give the

anæsthetic, one is to hold each thigh, and the fourth holds the staff. The latter should, if possible, be a surgeon, or at least, a very cool, intelligent layman.

The instruments required are, a catheter, a grooved staff, a sharp pointed scalpel, a straight bistoury, or a gorget, suitable forceps, and a tube to insert into the bladder, after the operation is over. You also want a syringe to wash out the bladder, and the usual supply of sponges, needles, ligatures, etc., to be used in case of hæmorrhage.

I will now direct the anæsthetic to be given, and as soon as the patient is under its influence, lay him upon this table, with his feet towards a strong light. We will now tie his hands securely to his ankles. This procedure can be dispensed with, but it is best to retain it, as at the critical moment of the incision into the bladder, any sudden motions of the patient might endanger his safety.

The hips are now drawn to the edge of the table, and I proceed to introduce a silver catheter into the bladder. The object of this is twofold. First, we wish to ascertain at the last moment that the stone is still there. This may strike you as a strange precaution, since we distinctly felt it and heard it click at our last sitting; but, gentlemen, I tell you some of the most distinguished surgeons in Europe have had the mortification of cutting into a bladder and finding no calculus, though they distinctly felt one at a previous examination. I can only account for this by supposing that the concretion had crumbled to pieces, and been discharged in the interval.

However this may be, surgeons are now cautious in the matter, and the rule is, that if we cannot feel the stone after the patient is actually on the table, we must defer the operation. Having introduced the catheter, I feel the same object as before, and as I percuss it, you distinctly hear the click, so the stone is doubtless still present. The second object of introducing the catheter is, that we may fill the bladder with warm water, and distend it so as to facilitate the operation of cutting into it. This being done, I will now introduce this grooved staff, and deliver it to the assistant to be held steady.

The staff must be held with the point well in the bladder, and the assistant must on no account, forget himself in that respect, for if he allow the point to draw back and escape from the canal after the urethra is opened, it is often nearly impossible to re-introduce it.

The next step is, to make the incision, which in this case we will do by what is called the lateral method. I first feel for the left *tuber ischii*, because along the inner border of this bone runs the internal pudic artery, which must not be cut. There are three main points to be avoided in the incision. One is the bulb of the urethra, or more accurately, the posterior part of the corpus spongiosum; the next is the rectum; and the third is the pudic artery. Between these three we have a sort of triangular space, within which an incision may be made down to the membranous portion of the urethra, without wounding any important organ. Placing, therefore, the point of my scalpel on the mesial line about an inch in front of the verge of the anus, I enter it well through the skin into the superficial fascia, and carry it backwards and outwards to the patient's left, towards a point between the anus and the *tuber ischii*. In this direction we shall avoid wounding both the latter organs. This first incision should be made pretty long, as the tissues of the perineum contract very much after cutting, owing to the presence of the dartoid tissue in portions of it.

The first incision being made, I will next deepen the anterior portion of it by dissecting carefully forwards and upwards toward the membranous portion of the urethra. At this stage of the operation, you will commonly cut the transversalis artery, which, if it does not cease its hæmorrhage by a little compression or torsion, may be tied. I am now able to feel the bend of the staff, and to distinguish the groove, into which I press the nail of the index finger. Now taking the scalpel again, I carry the point along the back of the finger, and follow the nail into the groove of the staff, cutting open the canal for about a third of an inch. Still keeping the finger there as a guide, the next step is to take a probe-pointed scalpel or straight bistoury, and placing the point of it in the

groove, turn the edge to the left of the patient, and a little backwards, and push it into the bladder. The entrance will be known by the cessation of resistance, and by a gush of urine. In this step it is not desired to cut the prostate entirely through, lest you lay open the areolar spaces of the pelvis to urinary infiltration, but only to notch the gland freely, so as to allow the introduction of the finger. Withdrawing the bistoury, you insert the finger along the staff, using it as a wedge to enlarge the opening in the bladder, and feel for the calculus. Next, withdraw the staff and insert through the wound a pair of lithotomy forceps, carrying them along the finger as a guide. If you have contrived to retain hitherto most of the urine, it will be all the easier to seize the stone, which is the next step to be taken. By separating the blades freely, the calculus will generally roll between them and may be securely seized. After grasping it, there are two points to be attended to: first, that we do not grasp with it a fold of the bladder; and second, as calculi are often elongated, that it is not seized crosswise. That the bladder is not seized, may be ascertained by the finger, and by trying whether the forceps can be rotated on its axis easily. To ascertain that you have seized the stone endwise and not crosswise, feel the position of it by the finger, and if necessary, loosen the hold a little and rotate it into the proper position. If the calculus is a small one, it may be brought out in any position; if large, draw it gently and carefully down, much as you would extract a fetus with obstetric forceps. Thus you see, I bring out the object which is oval in shape, and apparently an inch and a half in length.

The next step is to ascertain whether there are any more calculi present. With this view, I explore first with my finger, and next with an explorer or large steel sound. Finally, we will wash out the bladder by throwing in a copious stream of warm water with a syringe, to wash out any small fragments or clots of blood that may remain.

The great danger after this operation, is that of infiltration of urine into the areolar spaces of the pelvis. As a partial preventive, we will insert this silver tube through the wound

into the bladder, and retain it there for thirty hours. The object is to carry off the urine in that way, until the effusion of plastic lymph has so glazed the surface of the wound as to render the infiltration impossible.

The mortality of this operation in European hospitals is very great; so much so, that one scarcely sees how it is justifiable to perform it there. In this western country, however, in private practice, the risk is much less, being, in a selection of favorable cases, perhaps one death in twenty, and one in ten or fifteen of all cases, taken promiscuously. There are many points of great interest connected with the pathology and treatment of this disease, which I have no time at present to detail, but must defer them to another opportunity.

NOTE.—This patient was under the care of Dr. H. Wanzer, originally, and attended by him after the operation. There were no untoward symptoms in the case. After five days the urine began to flow in its natural channel, and the boy recovered in the usual time.

Correspondence.

MILK SICKNESS.

TO THE EDITORS OF THE CHICAGO MEDICAL EXAMINER.

GENTLEMEN:—The letter on “milk sickness,” which I send you (for extract or comment in the *MEDICAL EXAMINER*, if you see fit), is so nearly like my own deductions in its facts, that I deem Mr. Fisher worthy of credit in his hypothesis,—though he submits his remarks to the State Agricultural Society, through my son, Robert, and not to the Faculty, as you will see. While a member of the State Agricultural Board, I made inquiries of intelligent stock-growers, practically acquainted with “milk sickness,” and nearly all the facts I then gathered, are repeated in this letter.

Robert Kennicott, while in the southern part of the State, collecting specimens of natural history, ascertained the existence of *cobalt*, in some badly infected districts, but finding no traces of this mineral elsewhere, in localities where the disease existed, he did not publish his discovery.

I have been inclined to believe the "milk sickness" dependent on local miasmatic influence and unwholesome water, rather than any known and tangible mineral or vegetable poison. I have reliable information of the existence of "milk sickness," to an alarming extent, at one time, only forty or fifty miles southwest of Chicago; but never north of there,—while the *cicuta* was once very abundant in the prairie sloughs of this county, and is still plentiful hereabouts, though not where cattle drink. Any remarks from your pen would, I am sure, be welcome to reading stock-growers, in the few localities of this State where cases of this inexplicable affection still occur.

Your friend,

JOHN A. KENNICOTT, M. D.

THE GROVE, August, 1861.

DEAR SIR:—I am a stranger to you, but your public acts are familiar to me, in consequence of which I have taken the liberty of addressing you on an important subject, and so, through your assistance, bring the matter before the State Agricultural Society.

I desire to call the attention of the Society to the fact, that there exists through the Western States, a disease, known by the name of the "milk sickness." Whole families have, in a few days, been consigned to the grave; and yearly we hear of numbers dying with this disease. The "milk sickness" proceeds from the use of cow's milk, taken into the stomach as food. The milk being poisoned from some cause unknown and mysterious. In my opinion, it would not be violating the rules of the Society, to investigate this subject fully, and ascertain, for certain, the cause of the "milk sickness," and how to avoid it. In addition to the hundreds of the human family who sicken or die yearly of this disease, vast numbers of cattle

die, or are infected with the "trembles" so much, that it requires a long time for them to recover; and it is a matter of doubt, whether they ever become sound and healthful for either beef or milk.

In 1836, I became a resident of the State of Indiana, and lived on a branch of the White Water, in a settlement where the "milk sickness" prevailed; several persons died with it, and many were sick, who recovered; large numbers of cattle also died. I resolved, if possible, to find out the cause of the malady; I questioned all the intelligent settlers, and the physicians, in relation to it and its causes. The doctors said it was caused by using milk from cows that had eaten some strong narcotic; the farmers had various opinions about the matter; some thought it was caused by the poison vine that adheres to the trees, some the poison oak, and some were sure that it was a poison dew on the grass; but the larger portion believed it was produced by some unknown kind of weed, and others again, were certain that it was produced by the cattle drinking water out of springs containing poison, and they were under the impression that the poison proceeded from some mineral substance. I have frequently visited the localities where it was said, if cattle run, they would take the "trembles," and numbers die, and to use the milk from cows that fed there, would produce the "milk sickness." In all these localities, I found springs running over large pieces of wild, uncultivated land, producing swamp and damp ground. On this wet land, little else grew but the *cicuta*. The *cicuta* has large, fleshy roots, from which the stem is easily detached; the cattle in dry times, resort to these springs for drink, and tramp off the roots, which decay, and impart their poisoning substance to the water; the impressions made by the cattle's feet, in the wet land, become filled with water, and they drink this water, saturated with the decomposed *cicuta* roots; death or disease of some kind must inevitably follow. On cultivated grass, or prairie land, the roots of the *cicuta* are imbedded in the turf, and will not come up by taking hold of the top. The top contains but little poison, and the cattle are seldom injured by feeding in the cultivated land, or in the

prairies. In woodland, where it is wet or moist, the *cicuta* is found with its roots slightly covered with rotten leaves, and light earth; these are extracted readily, and are eaten with the tops, by the cattle, and this must produce sickness or death. In the woods the *cicuta* seldom seeds, grows tender, and is not rejected by cattle. A farmer in Indiana, said he was sure that the water of certain springs was the cause of the "trembles" in the cattle. He had a large enclosure of deadened timber; in one corner of this enclosure, there were two springs; when the cattle drank from these springs, which they resorted to when it became dry, "they took the trembles," and some died. On inquiring, I ascertained that there was considerable swamp about these springs, and nothing grew there but the wild parsnip, (the *cicuta* is known by the name of wild parsnip, water hemlock, wolf's bane, etc.,) and that as "thick as the bristles on a hog's back." I intimated to him, that it might be the "wild parsnip" that produced the "trembles." "No," he said, "it would kill sheep, but would not hurt the cattle;" he was certain the water, and nothing but the water killed the cattle, because he had fenced up the springs, and kept the cattle from the water, and after that he lost no more.

I have seen in swampy and wet places, large quantities of detached roots of the *cicuta*, in every stage of decay, the water colored by the decomposed roots, and this water was drank by the cattle. In all places where I found *cicuta* in this condition, "milk sickness" prevailed. After this, I resided in Ohio, on the East Fork of the Little Miami, near where the inhabitants had suffered severely from the "milk sickness"; five in one family had died with it, and a number of cattle had died also. I lived in the neighborhood eleven years. I made examinations of the locality where it was supposed that the cattle obtained the article that produced the disease. When I first visited the country, I saw large quantities of the *cicuta* in the damp parts of the wood; and about the springs, it grew in vast quantities. The trampling of the cattle killed it to a great extent about the springs, and that

which grew in the woods, was pulled up and eaten by them. In every year's visit, I found the *cicuta* less plenty, and at the end of ten years, very little was to be found. In proportion as the *cicuta* disappeared, so did the "milk sickness" and the "trembles" in the cattle.

If you feel disposed to have the foregoing subject investigated by the Illinois Agricultural Society, I should be pleased to hear from you as soon as convenient.

Yours, very respectfully,

GEO. FISHER.

Morris, Grundy Co., July 29. 1861.

To Dr. R. KENNICOTT.

Selections.

HINTS TO ARMY SURGEONS.

By CHARLES T. JACKSON, M. D., Boston.

From the Boston Medical and Surgical Journal.

It may be thought impertinent, in one who is exclusively a chemist, to venture any suggestions for the consideration of surgeons, now employed in the armies of the United States; but it should be remembered that I have spent much of my life in the study of medicine and surgery, and have had uncommonly good opportunities for observing military surgery in France, after the revolution of July, 1830, and in the insurrection of June, 1832. This must be my apology for obtruding a few remarks, which, though they may not be new to many surgeons, will perhaps be useful suggestions to some, and especially to those who have heretofore had no opportunities for improvement in this kind of knowledge.

Gun-shot wounds, I know, have much changed in character since the introduction of improved projectiles—the *minié* and slug balls in particular; and therefore improved instruments, adapted to the extraction of such balls, and the fragments of bone, should have been prepared. The old-fashioned ball-forceps, adapted to the extraction of a round bullet, are entirely unfit for the extraction of a *minié* ball or conical slug. Charrier's polypus forceps are vastly preferable; for, instead of dilating at the orifice of a wound, where it is most tender,

they actually, for the diameter of any bullet, diminish as to the space they occupy, owing to the crossing of the blades below the fulcrum. This instrument is the best I have ever used for the extraction of a ball, or of fragments of bones, bits of cloth, and other foreign bodies carried into a wound. They are strong enough, and yet are light and portable, serving in place of the common dressing forceps, for all common operations, while they are amply sufficient for the removal of a ball. They are also so light, that they will, in most cases, serve in place of the probe, in explorations, and are long enough to reach to any required depth into a wound. I therefore recommend them to all army surgeons, who, if they are not supplied with them now, will find them to be an exceedingly valuable addition to their operating or dressing cases. I brought from France the first pair of these instruments ever seen in this country, and Dr. John C. Warren borrowed them and had others made here for his own use, and for the Massachusetts General Hospital.

When a round ball strikes a cylindrical bone, it simply breaks it, and not unfrequently the ball itself is split into two pieces, or it is flattened and glides off into the soft parts. The round-ball forceps are not fit for the extraction of the fragments of lead, nor of the comminuted fractured bones. If a round ball strikes a bone, having in its interior a mass of cancellated structure, such, for instance, as the condyles of the knee-joint, the bone is not fractured into fragments, but the ball penetrates the hard shell on the exterior, and beds itself in the cancellated bone, if it does not pass entirely through the joint. If it does pass through, the orifice of exit of the ball will be much larger than where it entered, and there will be some splinters of the hard shell of bone torn off, and the proportion of these fragments will be greater, in direct ratio to the diminished velocity of the ball.

The minié ball, when it strikes the shaft of a long cylindrical bone, generally splits it for a considerable distance, especially if it strikes the bone fairly in the middle. The ball itself is more rarely divided, though it is flattened and compressed sometimes on its sides, where it is not supported, owing to its cavity at the base. If it strikes the side of a bone, it glances to one side very strongly, and will not be found in the direction in which it entered, and it is often very difficult to find where it is lodged, until inflammation reveals the spot.

In order to compare the effects of the common round and the conical minié ball, I took eight one inch pine boards and nailed them together, and then fired the two kinds of balls through the mass of board from a rifled carbine. The round ball made a hole gradually enlarging as it entered, and splint-

ered the board somewhat; but the minié ball entered the first thickness of boards, making a smooth round hole, but split the further half of them all to pieces, tearing off, as it passed out, large splinters of the wood. The effect of a ball, the force of which is partially suspended, will evidently be more destructive than when having its full velocity. It is observed, too, by all who have used a minié rifle, or any of the breech-loading guns, that in close action the men are more likely to overshoot their adversaries, than they would be if they employed the common musket or rifle, not prepared for long range. Indeed, many of the breech-loading guns I have seen, have no provision for sighting at near objects, and it is difficult to hit a mark nearer than one or two hundred yards; therefore soldiers really run much less risk, in charging boldly upon troops employing these weapons, than by carrying on a distant fusilade.

Leaving this subject, let me ask our army surgeons to prepare statistical tables of their operations in which they use anæsthetic agents; whether ether, chloroform, or the mixture of these two anæsthetics. It is very desirable that we should have the means of making a careful comparison of the effects they may produce on the healing of wounds. Ether is known not to delay or prevent healing by first intention. Is it true, also, with regard to chloroform?

We wish, also, by an extensive tabular statement of cases, to compare the mortality of operations under these two anæsthetics, and also with those in which four measures of ether and one measure of chloroform are employed; this being the preparation I have recommended for army use, in case the surgeons cannot carry so bulky an article as ether.

The subjoined table of a few cases, from *Benisson's Méthode Anesthésique*, will perhaps serve as a model for the record, and those who please may add more side columns for such other remarks as they may wish to enter on the record.

TABLE OF CASES.

No.	DATE.	NATURE OF OPERATION.	SEX.	AGE.	ANÆSTHETIC.	HEALED.	DIED.
1	1847 March 4	Amputation left arm....	man	43	Ether.	In 20 ds.	
2	" 22	" right leg....	man	30	"	23 ds.	
3	April 25	" left thigh....	man	22	"	15 ds.	(ritonitis
4	May 8	Lithotomy by perineum	boy	11	"		15 d., pe-
5	" 23	Extirp. rt. br'st; cancer.	wom.	59	"		5th d.,
6	Aug. 12	" cancer rt breast	wom.	30	"	12 ds.	pleurisy
7	1848 Aug. 3	Amputation right leg....	man	36	Chloroform.	15 ds.	
8	July 10	" " arm....	man	23	"	20 ds.	
9	Aug. 3	Extirp cancer rt breast..	wom.	29	"	1 mo.	
10	March 3	{ Cancer of the lip, tumor involving the sub-hy- oidian region.....	man	40	"		{ 15 ds. after opera.

Remarks may be added in full, by reference to the numbers, so that all the particulars which cannot be conveniently tabulated may be introduced; such as a description of the disease for which the operation was performed, the condition of the patient, the time which the operation required, the treatment after the operation, and, in case of death, the opinion of the surgeon as to the cause.

ON THE THERAPEUTICAL EMPLOYMENT OF OXIDE OF ZINC.

By S. WATERMAN, M. D.

From the American Medical Monthly.

Oxide of zinc is known to be a powerful therapeutical agent, yet its peculiar mode of action upon the human organism, and the various diseases in which it finds a rational application, are by no means yet fully understood. In the United States Dispensary, the account given of this article, is meagre and unsatisfactory. Some of the European Pharmacological works give a more minute description, but also without, by any means, exhausting the subject. I shall probably not state much that is new to *all* the readers of the *Monthly*, but from the observations which I have had the opportunity of making, I feel called upon to direct the attention of the profession to this medicine.

Oxide of zinc exerts a powerful sedative or soothing influence over the brain and the ganglionic nerves. Whether this influence is produced by direct action of the zinc upon the brain; whether it acts by a sort of revulsive influence, by transferring cerebral irritation to the plexus of the stomach, it is not possible as yet to tell. Its operations seem to be exceedingly mild, and free from after effects, such as are observed after the use of opium, and the kindred narcotics. In all cases where these narcotics are contra-indicated in diseases of the brain, zinc may be given, and in many of these cases its effects are positive and lasting; so that I have often considered it worthy of the title of "the opium of the brain." Its ability to soothe vascular excitement, dependent upon cerebral and nervous irritation, cannot be well doubted; whilst it possesses equal power to allay and calm the irritation of the brain and ganglionic nerves, unaccompanied by inflammatory action of these tissues.

It has proved itself useful to a limited extent, also, in in-

flammation of the brain and its membranes, but in a manner less marked and positive; and I think it, therefore, less worthy of confidence in these diseases.

From its action as described above, it is rational to expect beneficial results from its exhibition in the following diseases; and these expectations are borne out by actual trial and observation:

1. In *delirium tremens*. Indeed when all other remedies seemed to fail—when opium and its kindred narcotics had been unable to make any impression, and a fatal issue seemed unavoidable, oxide of zinc has in several instances rendered me such signal service, as fully to justify the confidence I feel in its therapeutical power. It need not be given in large doses even here; two or three grains every two hours are sufficient. It may be combined, if necessary, with opium or other remedial agents; and its use should be continued for some time even after the delirium has been overcome.

2. In *eclampsia infantilis*, after the fits have been broken by the free use of chloroform, zinc will be found a very serviceable agent to control the cerebral and nervous agitation, which almost always still harasses the little patient for a short time. I have often combined oxide of zinc in grain doses, with calomel, digitalis, and pulv. scillæ. Its effects have been thus most gratifying, and the impartial practitioner can certainly readily verify the truth of the observation. As in the former disease, its use ought to be continued after the convulsions themselves have disappeared.

3. In the *eclampsia* happening during pregnancy or labor, or menstrual irregularities, oxide of zinc acts beneficially upon the sensorium, with or without the administration, at the same time, of opium and calomel; especially in those cases where the convulsions originate from a high state of nervous sensibility, as is the case in subjects to hysteria, in its various forms. After the employment of chloroform, zinc will be found to exert its sedative influence in a most positive manner. I have given two or three grains per dose, every two hours, and would not advise a larger dose. In convulsions produced by plethoric habits, its effects are less reliable; whilst in convulsions arising from uræmic toxication, its effects have not been sufficiently tried to warrant any positive statement in its favor.

4. It will be found a most reliable agent in the various forms of *hysteric convulsions*, depending, as they do in most cases, upon inordinate action of the nerves and their centres. It is in these cases that its influence over the plexus of the stomach is most strikingly verified.

5. In the *exanthematic diseases*, when the eruption is accompanied by cerebral irritation, and even by convulsions, oxide of zinc has long been known to exert a soothing effect upon the nervous centres, and has been used by the most experienced European practitioners.

6. I have treated a few cases of *epilepsy* and a few cases of *chorea* with zinc. I have not had sufficient opportunity to watch its influence, but believe it to be, as stated by various practitioners, from time to time, for more than half a century, a very efficacious remedy in some cases; more especially, it is true of *chorea* than of *epilepsy*.

7. European writers recommend it as an excellent remedy in asthmatic difficulties and whooping-cough; but I have no experience to offer on this head, nor on the three following.

8. In England and in this country it has been very highly extolled against the night-sweats of phthisis, and as useful in all cases of profuse perspiration.

9. It has also been well recommended against worms, and still more against chronic dysentery.

10. To complete the list, I must yet mention that it is reported to have cured some of the most obstinate cases of intermittent fever.

The external use of oxide of zinc—unsurpassable in its satisfactory results, as it sometimes is—seems to be well enough understood by the profession generally.

In the estimate I have placed on the oxide of zinc, I have relied strictly on the results of my own practice. I have the notes of a number of cases in point, which I withhold from publication, only not to increase the length of this article; and I urge on all physicians to contribute their quota to our knowledge on the subject, to the end that its physiological effects and therapeutical uses, can at least, be definitely determined.

A CORRESPONDENT of the *N. Y. World* says, of the wounded in the Washington hospitals, after the Bull Run affair, that in consequence of the comparative *state of nature*, in which they lived for months previous to the action, the cases which would otherwise have been obstinate or incurable, are now in a rapid state of convalescence; in fact, to use the attending physician's words, "their wounds heal like those of wild beasts."

HAMMOND ON CHANCRE.

From Cleveland Med. Gazette and American Med. Times

From several lectures delivered at the Baltimore Infirmary, by Prof. Wm. A. Hammond, we condense the following statements in regard to the nature and treatment of chancre:

There are two species of venereal poison: one giving rise to a simply, non-infecting, soft chancre; the other causing an indurated one, liable to be followed by constitutional syphilis. There are also two kinds of virulent gonorrhœa, corresponding to the kind of venereal poison which comes into contact with the mucous surface of the urinary passages. The two poisons are by no means convertible into each other, but are essentially distinct, each kind of chancre inoculating with its own specific poison, and causing a sore of the same character as the parent chancre.

The soft chancre has never an indurated base; has perpendicular edges, a rough, dirty gray surface; discharges pus generally of a healthy character; enlarges to the size of a dime, then cicatrizes and heals in about four weeks. It is a local disease, never infecting the general system; the secretion from it may be inoculated, as long as the process of reparation has not advanced far. But this chancre is pre-eminently liable to complications: inflammation from irritating substances improperly applied (corrosive acids, nitrate of silver, sulphate of copper, etc.), or from individual causes, such as debility, dram-drinking, or the inordinate use of mercury, or from accumulation of the discharge behind the prepuce, or mechanical irritation, friction against the clothing, or during coition. Ulceration may occur, even without increased inflammatory action. Phagedœna is due to constitutional causes, intemperate habits, excessive sexual indulgence, bad food and air, but above all, to the influence of mercury. The bubo occasionally accompanying soft chancre is either a simple symptomatic adenitis, and non-virulent, or caused by the absorption of pus, then always of a specific character, suppurating, and furnishing an inoculable secretion.

It is always desirable to destroy the specificity of the chancre at an early stage. Of all the caustics recommended for that purpose, none is so manageable, and at the same time so effective, as the paste of sulphuric acid and charcoal, recently recommended by Ricord. Take strong sulphuric acid and mix finely powdered charcoal with it, so as to obtain a paste, which is carefully applied over and around the chancre.

In three or four days it falls off, with the slough it has produced, leaving underneath a healthy sore. The pain caused by the application, may be mitigated by opium. Where the paste cannot be employed, as in the urethra or rectum, nitric acid should be used, and a dossil of lint, thoroughly soaked in olive oil, be inserted afterward. A soft chancre in the process of healing, requires astringent or slightly stimulating applications, one of the best of which is a weak solution of tannin in water. Sulphate of zinc, acetate of lead, nitrate of silver, may also be employed, in weak solution, keeping the sore constantly moist with them. A constitutional treatment is rarely required. The bowels should be kept open, and indigestible food avoided, but no other special precautions are necessary. Wine, coffee, beef-steaks, cigars, etc., ought not to be forbidden to patients in the habit of using them. The most perfect cleanliness is desirable.

When inflammation is present, emollient applications, such as mucilage of flax seed, warm water, poultices, etc., are to be used. One of the best and most elegant articles is a cataplasm of chamomile flowers, changed frequently. Perfect rest in bed, a mild purgative, and a grain of opium every four or five hours, complete the treatment. The tincture of the chloride of iron, in doses of from thirty to forty drops, four or five times a day, is often of decided benefit, especially when there is a tendency to gangrene. The abstraction of blood is hardly ever required, while stimulants are generally of good service.

When phymosis or paraphymosis results from the inflammatory engorgement, warm applications and a soothing treatment do all that is necessary. Should, with phymosis, gangrene threaten, run a director under the prepuce and slit it open with the probe-pointed bistoury, till the constriction is removed. In paraphymosis, if mild attempts at reduction fail, and mortification threaten, the stricture should be divided by running a straight, sharp-pointed bistoury under it, and cutting outward.

For excessive ulceration, the sulphuric acid paste is generally the best application, with a grain of opium night and morning, internally. If the sore produced by the escharotic shows a tendency to spread, strap it with adhesive plaster, and give a chalybeate with opium.

The serpiginous ulcer is difficult to cure. Fowler's solution internally, and arsenious acid, with sugar sprinkled over the sore daily, frequently cause a very favorable change. Iodine, however, gives more satisfaction. Give Lugol's solution internally, with some preparation of iron, or with cod-liver oil,

and apply the tincture to the ulcer and neighboring parts every day. With this treatment the most obstinate serpiginous ulcers rarely fail to improve and heal.

Against phagedenic chancre, the sulphuric acid paste is the best remedy, with good diet, plenty of fresh air, and some preparation of iron. The potassio-tartrate seems to be almost a specific. Dissolve one ounce of it in ten ounces of water, and give of this, half an ounce three times per day, keeping at the same time, the diseased part constantly moistened by it. Some cases not early attended to, resist all treatment.

Bubo from simple adenitis, advances slowly, is not painful, and soft. Should it break, or be opened, the pus is discharged without inoculating the edges of the wound. The virulent bubo is of rapid growth, suppurates early, and is accompanied with considerable pain; the integument covering the abscess, if not punctured, sloughs, leaving a true chancre, with inoculable pus. This chancre in the groin is more liable to phagedena than the original sore. The simple form is to be treated with discentient lotions, containing sub-acetate of lead or chloride of ammonia. These may be conjoined with pressure by means of a graduated compress, held in its place by a proper bandage, or by collodion painted over. The tincture of iodine, or the ointment, are also valuable applications; still better is a solution of iodide of potassium, twenty grains, and iodine forty grains, in one ounce of glycerine; or the iodide of lead ointment may be used. If dissolution is not effected by these means, an early incision should be made, or rather, several small setons be passed through the back of the swelling, followed by pressure. Pyæmia may result from too large an incision; a tedious recovery certainly does.

In the virulent bubo, suppuration must be hastened by chamomile cataplasms, or other poultices, and as soon as possible the abscess should be laid open by a long incision. The remaining ulcer is treated with the escharotic paste, etc., in the same manner as the original chancre.

The indurated, infecting, or true syphilitic chancre, appears but once in a lifetime, on the same individual, and the secretion from it cannot be successfully inoculated in the body of the patient. When this form has commenced to heal, it, like the first, loses its virulent characteristics entirely. An indurated bubo is an almost constant companion, but may, in some cases, be prevented by a timely administration of mercury. Secondary symptoms may ensue without the presence of a bubo. A characteristic sign of this kind of bubo is the enlargement of all the lymphatic glands around the infected one.

The principal indication of the treatment, is to prevent infection, the cure of the local trouble being comparatively a small matter. If seen in the first stages, say within the first six days from the appearance of the pustule, the indurated chancre should be destroyed by the sulphuric acid paste. After cauterization, the most simple applications are all that is necessary. The aromatic wine acts very well; a weak solution of tannin is equally efficacious. Should the chancre be healing, or have ceased to progress, cauterization is useless and improper. In such cases, commence the local treatment with the solution of tannin. Nothing else is required locally. The efficacy of internal remedies in accelerating the cure of indurated chancre is doubtful, although they may be necessary for the purpose of preventing infection, or destroying the morbid matter circulating in the blood. Indurated chancres heal just as soon without mercury as with it. Under the influence of this agent, the induration disappears sooner than if no mercury is given, but the ulcer is just as long in healing.

Book Notices.

A TREATISE ON DISEASES OF THE JOINTS. By RICHARD BARWELL, F. R. C. S., Assistant Surgeon Charing-Cross Hospital, etc. Illustrated by Engravings on Wood. Philadelphia: BLANCHARD & LEA. 1861.

BARWELL's name will be recognized by the reader familiar with the periodical literature of the profession, as one of the most earnest and original monographists of the past half-dozen years. His contributions to the knowledge of the physiological and pathological anatomy of the tissues of joints,—elaborate and valuable in themselves,—were, however, but preliminary steps in the accomplishment of his object, and “were not undertaken,” as he says, in his modest preface, “so much from love for that sort of work as from a perception that certain links must be supplied, certain entanglements unravelled, and error, if any existed, corrected.”

The present volume forms a land-mark, so to speak, in the improvements which have been made in this branch of surgery; clearly and practically arranging and defining the ac-

quirements and limits of our present knowledge, the records of which, have existed, heretofore, only in scattered essays and isolated papers, mixed up with somewhat of downright error, not a little that was empirical, and much that needed the further test of time and enlarged experience to warrant its acceptance. The work is divided into two parts, of nine chapters each; the first chapter, devoted to the physiological anatomy of the joints, is valuable and interesting, aside from its clear, succinct treatment, on account of the peculiar views of the author on some points, differing from preceding writers. Among these, his description of the articular lamella (pp. 25, 26,) views which met much opposition when first broached, in 1859;—his exposition of the arrangement of the synovial membrane upon cartilage (p.p. 29,30;) his puncture of Weber's synovial vacuum theory; and his reconciliation of Quekett's and Bowman's conflicting representations of the yellow fibrous tissue, are some of the more important. It is hardly necessary to observe that his statements are as well sustained and as carefully, though boldly made, as in the original papers, the substance of which this chapter embodies.

Chapter II. is an exhaustive treatment of *Acute Synovitis*, sixteen pages on its pathology, seven on the symptoms, and ten on the treatment,—abundantly supplied with clinical illustrations. Mr. BARWELL “cordially commends the value of” free incisions into suppurating joints, where the wound is small, or there is no wound,—not simply “to allow shreds of cartilage to escape” as advanced by Gay, but because “a joint once suppurated, has lost that sensitiveness to the contact of air which it normally possesses; it is an abscess, and one cause of the great constitutional disturbance produced by the disease, is confinement of matter deep among bones and tough fibrous structure. Therefore, if a *depending* part of the joint can be in any way reached, it should be wisely incised.”

Partly from its bearing upon the chronic form, *Acute Rheumatism*, though not legitimately within the surgical province, is next treated of; partly from the above reason, but also, and not less, we suspect, “because a very high authority [Dr. Todd], has recorded his opinion, that the local affection of the

joints is not inflammatory." *En passant*, we may mention a trait which impresses us not less forcibly than our author's sturdy Saxon sense, plain, direct, and straightforward,—that is his national combative proclivity. Not that we mean by this to imply that he seeks for argument and contradiction; but whenever he meets what he conceives to be error, he straightway attacks it, and usually, as in the present instance, with pronounced success.

Pyarthrosis,—purulent absorption, pyæmia, or a half-dozen other synonyms—is the subject of the fourth chapter, embracing a consideration of the various theories of its obscure pathology, and a résumé of the unsatisfactory results of experiments. BARWELL considers the disease largely resultant from a peculiar zymotic influence, affecting the blood, and relies on quinine mainly in its treatment. The chapter on *Strumous Synovitis*, which is the next in order, is one of, if not *the* most interesting in the volume. No sketch can do anything like justice either to the chapter or the book itself,—a fitting review of which we do not attempt, but hasten to give the headings of the remaining chapters: Chapter VI.—*Rheumatic Synovitis*. Chapter VII.—*On Some Other Forms of Chronic Synovitis*—syphilitic, gouty, simple. Chapter VIII.—*Hydrarthrosis*,—pathology, symptoms, treatment, cases. Chapter IX.—*On Loose Cartilages in the Joints*. Part second is devoted to the consideration of *Diseases Commencing in the Bone*,—the first part of the volume having embraced, as will be seen by the above titles, only those diseases commencing in the synovial membranes and sub-synovial tissue. For greater accuracy and clearness, Mr. BARWELL designates inflammation of joint-bones *Articular Osteitis*, and divides it into two kinds,—the acute and the chronic, after the German method. Chapter X. treats of the first division, and the succeeding chapter, of *Strumous Articular Osteitis*,—an essay rivalling in value and completeness anything we have ever read on the subject. *Chronic Rheumatic Osteitis, Inflammation and Degeneration of Cartilages, Hip-Joint Disease, Affections of Synovial Sheaths and Bursa in the Neighborhood of Joints, Restoration of Mobility and Conformity to Crippled Joints*, and the

Removal of Diseased Joints, form, respectively, the subjects of the remaining chapters.

Where there is so much that is meritorious, we have no wish to weaken our approval by censure or fault-finding. And yet we could wish that the distinguished author had shown less cockneyism in his citation of authorities, made, as they are, to the almost complete exclusion of the American. Chapter X. betrays an ignorance of "the most elaborate and complete work on Surgery ever published in any country,"* only equalled by the almost total ignoring, in chapter XIV. (Hip Joint disease,) of such American authorities as March, Harris, Davis, Sayre, Andrews, Taylor and others, and their hip-joint splints,—to which, by the way, his own is decidedly inferior.

In succeeding editions of the work, which we have no doubt its intrinsic worth will soon necessitate, it will be the duty of the American publishers to submit its pages to the supervision of competent hands, who shall supply the deficiencies, and correct the errors we allude to. Its present handsome typographical appearance, and accurate illustrations, reflect credit on the enterprise and good taste of the publishers.

TREATMENT OF FRACTURES OF LONG BONES BY SIMPLE EXTENSION. BY JOHN SWINBURNE, M. D., ONE OF THE SURGEONS TO THE ALBANY CITY HOSPITAL. ALBANY: VAN BENTHUYSEN, PRINTER, 1861.

THIS is a pamphlet edition of the sixteenth paper, in the last volume of the *Transactions of the State Medical Society of New York*—for a copy of which we are indebted to the courtesy of the author.

DR. SWINBURNE'S views have been before the profession during the past three years or more, having been first presented at the meeting of the above Society in 1859; but Dr. S. has personally tested his plan during some thirteen years, in private and hospital practice. We think his *brochure* valuable, in that it will serve to direct the minds of those who read it, to the fact that much of the present bandaging and dressing is entirely unnecessary; and, which is far more important, that

**Lancet*, *Lancet*, and *Dublin Quarterly Journal of Medical Science*,—reviews of Prof. S. D. Gross' *System of Surgery*, 1861.

it persistently presses home the great central fact in the correct treatment of fractures, viz: *the absolute necessity of securing proper extension and counter-extension*. But the plan of treatment is, by no means, so novel and revolutionary as one would be led to believe from its title, or the discussion it has occasioned.

Briefly, the modes of treatment proposed by Dr. SWINBURNE, are as follows: *In fractures of the femur*, the patient is placed in bed, and a broad, well-padded belt, passed beneath the perineum and over the groin of the injured side, is fastened to the head of the bedstead—furnishing the counter-extension; while extension is made by the use of adhesive strips, attached to the leg, and fastened, by a cord, to the foot of the bedstead. The position of the foot is controlled by a strip of cloth or plaster, or by a bran or sand bag. Forty cases have been treated in this manner, in but one of which “was there visible shortening, nor was there any distortion of the thigh; no eversion or inversion of the foot. The average period of time during which extension was maintained was five weeks; and in the majority of cases, union was tolerably firm at the expiration of from fifteen to thirty days, according to the age of the patient and the nature of the injury.” Of these cases occurring at all parts of the shaft and neck, some were oblique, some compound, some comminuted, and in one case four inches of the bone was crushed in fragments. “Two were cases where the thigh and leg were *both* fractured, and in *all* the results may be considered *perfect*; for where shortening only amounts to half an inch, it can be ascertained only by actual measurement. Of these forty cases, twelve were fractures within the capsular ligament, occurring in patients, most of them over sixty years of age, and all treated by this method of extension, with results much better than could be expected, and which it would have been in vain to expect under the usual treatment.”

In fractures of the tibia and fibula, extension and counter-extension are made “through the medium of a delicate splint, and an equally delicate foot-piece,”—to all intents and purposes, a Desault’s splint; though, where the seat of fracture

is near the knee-joint, the treatment is the same as in fractured femur. In compound fractures of both bones, the double-inclined plane or hinged splint, is preferred, to remedy the tendency of the superior fragment to anterior displacement: though other modes are used.

In fractures of the upper extremities, the principle involved is the same. In the humerus, simple extension is made by having a splint extending three inches below the elbow and the same distance above the shoulder. The elbow is secured to the lower part of the strip of board by means of adhesive plaster passed through an opening, while to its upper extremity it has fastened the extremities of an axillary belt. Lateral motion is to be prevented by the use of strips of plaster binding the arm to the splint. Fracture in or near the elbow joint is treated by dressing the arm on a hinged-splint, whose superior extremity is furnished with an axillary belt, or is strapped to the arm with adhesive plaster. To the inferior extremity the hand is secured also by adhesive plaster, and sufficient extension and counter-extension is then obtained by flexing the arm at the elbow. The position of the hinge, above or below the elbow, regulates the seat of extension: if placed above, the extension is made between the elbow and hand, if below, between the elbow and the shoulder. Colles' fracture is treated by a splint extending from the point of the elbow to the metacarpo-phalangeal articulation, supplied with two compresses, corresponding to the concavities at the elbow and carpus.

We have not space for further detail, referring to the work itself for much that is well worthy of perusal; but merely add,—Dr. SWINBURNE's improvement deriving so much of its value from its total disuse of bandages,—the following remarks on this subject:

* * * There is no need of bandaging in the treatment of fractures at all, and the treatment is more speedy and comfortable to the patient without bandages than with them. I have now treated, without any bandages whatever, forty fractures of the thigh, in every portion of its shaft, simple, compound, comminuted, and intra-capsular, and with better results than would be obtained by splints and bandages. I

have treated over one hundred fractures of the long bones with no bandaging, and only dressing enough to perpetuate the extension, which, in my humble judgment, is much better than trying to force the bones to maintain their position by lateral pressure with bandages, compresses and splints.

If the source of irritation, (the fractured ends of the bones,) is removed by their reduction and maintainance by such means as will not obstruct circulation and cause infiltration and inflammation, the precautions as to bandaging are unnecessary. If bandaging, at the time of its application, does not produce the slightest constriction anywhere, the subsequent infiltration and inflammation of the tissues will soon make the limb an uncomfortable bedfellow, as every day's practice will sufficiently attest.

I think it is not the bandaging at the time that produces all the bad results we occasionally see; it is the subsequent swelling. I regret to say that the profession, sometimes, sacrifice everything to appearance. A beautiful dressing (with them) is synonymous with a good result.

Now, if there is no necessity of bandages in the treatment of fractures, why not dispense with them as much as possible, as they are painful and troublesome in their application, and in all the subsequent dressings still more so.

They constrict the limb, producing more or less mischief—1st, by the extra warmth of the parts; 2d, obstruction to circulation; 3d, difficulty of examining carefully the position of the bones; 4th, the trouble, pain and disturbance of the bones in re-dressings. Per contra, by the plan under discussion the limb is kept cool, is examined at will, and little constriction ensues. Hence, little or no pain is experienced during the process of reparation, and no disturbance caused by re-dressing.

THE MORBID EFFECTS OF THE RETENTION IN THE BLOOD OF THE ELEMENTS OF THE URINARY SECRETION. By WILLIAM WALLACE MORELAND, M. D., Member of the Boston Society for Medical Improvement; one of the Attending Surgeons at the Central Office of the Boston Dispensary, etc. Being the Dissertation to which the Fiske Fund Prize was Awarded, July 11, 1860. Philadelphia: Blanchard and Lea. 1861.

This Essay, originally printed in the *American Journal of the Medical Sciences*, is another of the very excellent and valuable contributions made to American medical literature, through the agency of the Fiske Prize Fund of the Rhode Island Medical Society. No branch of pathological investigation has been more assiduously or enthusiastically cultivated

than this which Prof. Hammond styles *Urology*,—nor is there any which has better repaid the researches of the student, or thrown more light upon an all-pervading and powerful source of disease. What the stethoscope and the speculum have done for other organs, the test-tube and the microscope have accomplished for those equally important ones,—the kidneys, the great blood-depurators of the animal economy. They have furnished us a key to the many mysteries which envelope those diseases, resulting from a retention of the elements of the urine in the blood. They have extorted from the secretion the secret of its composition, and have enabled the physician to hold to strictest account these emunctories; so that their failure to deliver up in due proportion any one of its constituents, made manifest, rationally, by disturbance in some other organ, may be proved, physically, and with mathematical precision, by an appeal to the *experimentum crucis* of the acid and the lens.

Dr. MORLAND has here given us a condensed résumé of our present information on the subject; and, to the great convenience of those desirous of still more detailed and thorough knowledge, a most ample wealth of reference and quotation. The work is one, not admitting of further condensation or abridgement, from its already cyclopædic brevity and character; we therefore, content ourselves with this notice of it, and recommend it to our readers for perusal. W. B. Keen, 148 Lake Street, Chicago.

THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES: including the Results of Recent Investigations on the Subject. By FREEMAN J. BUMSTEAD, M. D., Lecturer on Venereal Diseases, at the College of Physicians and Surgeons, New York; Surgeon to St. Luke's Hospital; Assistant-Surgeon to the New York Eye Infirmary. Philadelphia: Blanchard & Lea. 1861.

Through W. B. Keen, 148 Lake Street, we are also placed in possession of this volume, whose receipt only, at this time, do we propose to acknowledge,—reserving for our succeeding number a suitable notice.

The same gentleman also sends us, for the publishers, Lindsay & Blakiston, Philadelphia, WYTHE'S *Pocket Dose and*

Symptom Book, and the *Physician's Visiting List*, for 1862. These little conveniences are so well and favorably known to the profession that we deem it only necessary to announce their publication. WYTHE's work is in its third edition, and contains the doses and uses of every officinal remedy and preparation; nearly every useful native medical plant, and a variety of remedies recently introduced to the profession. The part devoted to symptoms of disease, and the outline of General Pathology and Therapeutics, will be found useful by the student. The classification of the *Materia Medica*, the table of weights and measures, add to the value of the work, and render it a *valde necum*, in which the most useful information is compressed into the smallest possible compass, for the benefit of treacherous memories.

Editorial.

MEDICAL SOCIETIES.—The local medical societies existing in most cities and large towns, which are accustomed to hold meetings once a week or once a month, have ever found it difficult to keep up a full or even a moderate attendance during the summer months. The increased amount of business at that season of the year, and the short evenings, are obstacles in the way of the punctual attendance of members. During the past summer, however, the excitement consequent upon the unhappy condition of the country, has furnished an additional obstacle in the way of maintaining social organizations.

For a few years past Chicago has had two medical societies, each in a tolerably active and prosperous state. Each has held its meetings once a month, and many members of the profession in the city belong to both. For the last three or four months it has been difficult to get a quorum together in either society, and in the Academy serious thoughts were entertained of disbanding altogether. But at the regular meeting held on the first Friday evening of this month, a new

start was taken, and all needful preparations were made for resuming the business of the Academy with renewed energy and interest. Preparatory steps were taken to lop off all the dead branches, to revise the finances, and to enter upon medical and surgical investigations and discussions more systematically than before. A standing committee was appointed to present, in the form of a brief report, at each meeting, whatever there was new and important to be gleaned from our current medical literature. The *treatment of delirium tremens* was chosen as the subject for discussion, and a member was appointed to deliver the Annual Oration at the next meeting.

The Chicago Medical Society, which is much older than the Academy, has had but a thin attendance at its meetings for a few months past, though its members have at no time thought of giving up its organization. Doubtless it, too, will now exhibit new life; and we would suggest that its meetings, from this time until spring, be held once a week, instead of once a month. There is no real jealousy between these organizations, and we trust they will both be active and prosperous at the time for the meeting of the American Medical Association, on the first Monday in June next.

WHAT AILS THEM?—The editors of the *Chicago Medical Journal*, who are also prominent members of the Faculty of Rush Medical College, seem to have been in a very unpleasant state of mind for many months past. Very few things appear to suit them. In one paragraph they give the government a slant about the war; in another they cast insinuations on the Army Board of Medical Examiners; in another they hint that some regimental surgeons have salivated their patients; and again it is blindly intimated that somebody has been appointed Surgeon to a regiment who had, at some time in his life, mistaken an inguinal hernia for a bubo. They are equally disconsolate and troubled about the manner in which the Army Board of Examiners for this State perform their duties, and in which we edit the EXAMINER, or even conduct our professional practice. We are sorry that our neighbors are in such a perturbed and unhappy state of mind, and the question has often been

asked, "What ails them?" Without claiming any superior skill, we think the answer can easily be guessed out. Less than three years since three members of the Faculty of Rush Medical College resigned their places in that institution. Those three, included the men who for years had given nearly all the preliminary lectures before the commencement of each annual session, had performed all the labor of finding accommodations for students as they came into the city, and had published their medical journal, furnished most of the members of the faculty with copies gratuitously, and footed the bills out of their own pockets. Since these resignations, a large part of the labors just enumerated have fallen upon the present editors of the *Chicago Medical Journal*, and it is a fact well known to careful observers, that *much labor* and *little pay* always produces a very unpleasant *constitutional irritation* in certain temperaments. This, together with the fact that neither President LINCOLN nor Gov. YATES saw fit to place the medical department of the army, either in the nation or the State, directly under the supervision of the senior editor of that journal, is amply sufficient to explain their unhappy condition. We hope they will learn to bear their infirmities with more patience.

MAL-PRACTICE SUIT.—A decision in the case of FARRELL *vs.* CADWELL, in the Superior Court, before Judge McALISTER, has just been rendered against the defendant, fixing the *ad damnum* at *ten thousand dollars*. The defendant was Dr. F. A. CADWELL, a somewhat notorious oculist and aurist of this city, and the plaintiff, a domestic in one of the hotels. The plaintiff averred in her declaration, that on the 13th of July, 1860, she applied to the defendant to remove an imperfection from her left eye, being a scar caused by small-pox; that the defendant pretended he could restore the eye to its original appearance; that the operation would not be painful, and would not keep plaintiff from her work longer than six or seven days; that it would not impair the right eye, which was then well and healthy. That in consequence of these representations, she submitted to the operation, previously paying

the sum of \$30, which he demanded in advance; that he conducted himself in an unskillful, ignorant and negligent manner; that he improperly cut and punctured the left eye, so that inflammation set in. That he afterwards did not visit the patient nor attend upon her; but carelessly and improperly caused her to be led out to his office, when she was in a weak and feeble state of health, whereby she took cold in her eyes, producing inflammation, whereby the left eye was lost; and afterward that he introduced into the right eye certain inflammatory drops, whereby the right eye was greatly injured, and its sight destroyed.

The defendant, on his part, alleged the disease was *staphy-loma*, that he did not undertake to restore the eye to its original condition, but to reduce its size, in order to insert a glass eye over it; that he practiced ordinary, if not more than ordinary skill, for this purpose, and that the loss of the plaintiff's eye was the result of her own neglect, instead of his ignorance, neglect or mal-practice. The jury, after being out some sixteen hours, handed in their verdict, as above, when counsel for defense moved, in arrest of judgment, for a new trial.

DEMONSTRATOR OF ANATOMY.—In the September number of the EXAMINER we stated that the place of Dr. H. WARDNER, formerly Demonstrator of Anatomy in the Medical Department of Lind University, but now Surgeon of the 12th Regiment of Illinois Volunteers, would be supplied during the present college term by Dr. J. S. JEWELL. At the time, we supposed that such an arrangement had been completed, but the announcement was premature.

The place has since been filled by the appointment of ERNST SCHMIDT, M. D., of this city, but recently Professor of Pathology in the Humboldt Institute, of St. Louis. Prof. SCHMIDT is an accomplished scholar, and an experienced teacher, and we are quite sure that he will discharge the duties of his new position in such a manner as to confer honor, both upon himself and the University.

CHICAGO SANITARY COMMISSION.—A citizen's meeting was held, in this city, on the 17th inst., at which the following

gentlemen were appointed a Sanitary Commission: Hon. MARK SKINNER, President; H. E. SEELYE, Esq., Permanent Secretary; E. W. BLATCHFORD, Esq., Corresponding Secretary; Col. J. W. FOSTER, JAMES WARD, Esq., RALPH N. ISHAM, M. D., REV. DR. TIFFANY, and REV. MR. PATTON.

We are not advised as to their sphere of duties, but presume they will co-operate with the National Sanitary Commission, and, directly, have in charge the welfare and sanitary care of our Illinois troops. And *à propos* to which, we may mention that twenty additional nurses and two Sisters in charge, have been dispatched to St. Louis and Jefferson City, by the Sisters of Mercy of this city, making in all thirty-two able, intelligent, trained nurses sent hence by this Order to care for our sick and wounded in Missouri.

OPENING OF THE MEDICAL COLLEGES IN CHICAGO.—The Medical Department of Lind University opened its regular winter term on Monday evening, the 14th inst., by an introductory lecture from Prof. E. ANDREWS.

The Rush Medical College commenced its regular term, we believe, on Wednesday evening, the 16th inst.

We are informed that the prospects are good for fair classes in both institutions. The Faculties of both will do their best to give every student who comes to Chicago as good facilities for education as he can find any where else.

ACTION OF OPIUM ON THE GENITO-URINARY ORGANS.—Dr. GEO. B. WILLSON, of Pt. Huron, Mich., commenting* on Dr. WOODWARD's article on the above subject, originally published in the EXAMINER, remarks that he has frequently seen the muscular coat of the bladder so paralyzed by the dose of one-third of a grain of acetate of morphia as to necessitate the use of the catheter, and proposes its relief or avoidance by the coincident use of sweet spirit of nitre. The Dr. goes on to define his views of the therapeutic action of the drug, differing from Dr. WOODWARD, as to its true impression upon the kidney,—the latter, it will be remembered, attributing the "increased secretion from the kidneys to its relaxing properties," while Dr.

* In the *Boston Medical and Surgical Journal*, Oct. 17th, p. 209, Vol. LXV.

WILLSON claims that "it acts upon the kidneys, the skin, and every other part by which it is excreted, as a direct irritant." This irritation, increasing the secretion of water simply, also produces "the spastic contraction of the sphincter of the neck of the bladder"—before alluded to as paralysis of the muscular coats, and this, he remedies by the relaxant and anti-spasmodic action of the sweet spirit of nitre.

Dr. WILLSON concurs with Dr. WOODWARD as to the anaphrodisiac effects of opium, and adds, that its use persevered in, repeatedly, for several days or weeks at a time, and with intervals of the same, will produce atonic spermatorrhœa, during the intervals.

We hope the Dr. will favor our readers with a paper on the effects of opium on the procreative functions, agreeing with him, that "it is a shame and disgrace to the profession, that so important an article should be so little understood."

BOOKS AND PAMPHLETS RECEIVED.—In addition to the volumes, noticed in the proceeding pages, we also have to acknowledge the receipt of *The Pathology and Treatment of Venereal Diseases; Including the Results of Recent Investigations on the Subject*, a handsome octavo volume of pp.686, by the well-known lecturer on this subject in the New York College of Physicians and Surgeons, and translator of Ricord's Hunter, FREEMAN J. BUMSTEAD, M. D.

Also, the fifth American, from the seventh and revised London edition of TAYLOR'S *Medical Jurisprudence*. Also, *The Transactions of the Medical Society of the State of New York, for the year, 1861*.

The *London Lancet*, HAY'S *American Journal*, and the usual monthlies and weeklies are, also, received.

Dr. GIBSON ADVISES for stomatitis materna as "nearly specific as quinine for intermittent fever," chlorate of potash, half drachm doses daily, and application of solution of tannate of zinc to the part affected. The use of chlorate of potash in this and all kinds of stomatitis is indeed "nearly a specific," and has long been so regarded and employed in this city.—*Amer. Med. Monthly*.

UNITED STATES SANITARY COMMISSION.—We have not as yet, received the volume of the *Transactions* of this body; but reprint the following extracts from the “Notes of a Preliminary Survey of the United States Force in the Ohio and Mississippi Vallies, by H. W. Bellow, D.D., President of the Commission,” from one of our exchanges: *

“Though low, it (Cairo) is now neither damp, muddy, nor unhealthy. The water which stands in the plain a few inches deep, after a heavy rain, very soon, owing to the sandy character of the soil, disappears. Engines are at work, also, to drain the surplus water off into the river. The army has cleared away some thousands of stumps from the central plain of Cairo, and created a very fine parade of two or three miles long, and a mile or so broad. Col. Paine’s regiment was chiefly active in this good work, which will prove of lasting service to Cairo. The general health of the place is testified to by an intelligent resident physician (a Virginian) as being better than at most points on the Ohio and Mississippi. Fever and ague does not abound, and there seemed to be a general testimony among the army surgeons there, that the health of the troops was as good as at any other point, where so many men are collected. The sick list showed us about 250 on their backs in a force of 6000, which, at the close of June and first of July, is not an excessive number. The open, airy character of Cairo, situated between two rivers, which act by their unequal currents as perpetual ventilators, save it from the influence of the malarious airs, which seem to blow over it, and produce their mischievous effects in the high lands beyond, on bluffs crowded with wood, as at Villa Ridge, clothed with a forest obstructing the free passage of winds, and occasioning, perhaps, by a cooler atmosphere, a precipitation of the poison at a particular level. Cairo proves more healthful than would be supposed from its apparently exposed position.”

Dr. Bellows finds in too many instances, much inattention to cleanliness, carelessness on the part of the men, overcrowding, etc., which seem to be the almost universal faults among our volunteers at first. We cannot help quoting one case of gross want of judgment in locating a camp, and of apparently culpable remissness on the part of the medical officers. Speaking of the 22d Illinois regiment, in camp at Caseyville, he says:

“The 22d regiment, Col. Dougherty, is in a wretched condition. It is encamped only a half mile to the east of the 13th.

*The *Boston Med. and Surg. Journal*, October 17, 1861.

But it is in a valley, beneath very shady trees, and under the lee of some hills, all which combine to make the miasmatic atmosphere stagnate at the spot, as the winds have no circulation. They have been there only thirteen days, but have 250 men, out of about 900, more or less sick with camp dysentery. This is due in part to the situation, but in part also to the water, which is black and disgusting. It is taken from some pits sunk in a kind of a half stagnant gutter, in the other end of which the pigs are rooting. All the water they have is from this wretched source, and they have not enough even of this. Of course they mix worse rum with this bad water, and the men are poisoned.

"The hospital is in a room hired for the occasion, which is a perfect pig-sty for nastiness. The accommodations are only for, say five and twenty, and the sick are 250. The steward (for both surgeon and assistant were absent) had made fifty prescriptions to-day, and was not through yet. The camp has no hospital tent or stores, except what it borrows from the 13th. The surgeon of that regiment is also absent. There is evidently a gross neglect in these easy absences, granted at a time when no excuse should suffice to absent the doctor, who is so sadly wanted."

Speaking of the effect of the water upon the health of a large camp, Dr. Bellows says:

"It is evident that change of water, and especially *bad* water, is the most immediate and serious cause of illness in all western camps at this time. Pains enough are not taken to place the camps with reference to the vicinity of good water. The best water in Illinois was said to be found at a ridge running down from four miles below Alton, near the Junction, where broad and excellent camping and parade grounds existed. The colonels had *prospected* this place, and approved it; but were nevertheless—so I heard from a reputable source—ordered to remain where they were, and where they had actually suffered at first for want of *enough* water, because the contractors found the immediate neighborhood of Alton a more profitable place to meet their engagements in!"

Referring to the matter of discipline, the Commissioner says:

"Col. Turner said the great difficulty was in getting the men to obey officers no better than themselves, and often not as good. The officers might *persuade*, but did not know how to *command* men they associated with at home as equals. And this is the chief misfortune about the volunteers, and really raises the question, whether the men of one district would not be better officered from another. The colonel

complained that it was very difficult to have the camp police, in respect to the use of sinks, carried out, and this was evident to several senses."

This is an evil which our Virginia experience must have done much to correct by this time; actual service in the field soon shows men the importance of obedience to their officers.

As a specimen of the operation of the red tape, we give the following:

"It is evident that the medical directors are in general too few, too old, or too inactive; that they do not go about and inquire into the wants of the surgeons and hospitals, and facilitate their accommodation with stores. The regiments at Caseyville, Cairo, Alton, had been visited by Dr. Taggart, who referred them to Dr. —, who was with General McClellan. But all this roundabout inquiry compelled these urgent hospital wants to be referred to Springfield—a distant place—where orders were made out to be filled at Cincinnati, while at the time a medical director and purveyor both existed at St. Louis, with abundant stores, whence, at a distance of nine miles from Caseyville, twenty from Alton, and six hours or so from Cairo, all these wants could be in twenty-four hours fully met. I endeavored to bring this about; but the medical director at St. Louis is old and inactive, and past real usefulness; while Dr. Bailey, medical purveyor, no longer young, lives at Jefferson Barracks, where he is surgeon, and does the duties of this St. Louis post as extra service, which is all wrong. Young, active and efficient men are solely wanted in this important department. The lack of a regular inspector, U. S. A., flying through the camps, communicating information, and spurring on and facilitating official service, is most obvious."

MEDICINE AND SURGERY IN THE ARMY.—The U. S. Sanitary Commission have just published a circular, drawn up by Prof. VAN BUREN of New York, recommending the use of quinine in our armies, as a prophylactic against the malarious fevers of the regions they are now, or will be operating in during the war. The following extracts we re-print from the *Amer. Med. Times*:

"DR. VAN BUREN alludes to his own experience while on the medical staff of the U. S. Army in Florida. A serious outbreak of miasmatic disease occurred at the station, and the stock of quinine being exhausted, a substitute was prepared with whisky, the bark of the common dogwood, wild cherry

bark, and a small quantity of quinine, which reduced the number of relapses, and mitigated the attacks.

The British naval authorities have long been impressed with these facts, and have acted accordingly. Dr. BRYSON states in the *Navy Medical Reports*, (No. xv.) that—

“It has long been a standing rule in the Navy, enjoined by the 9th Article of the Surgeon’s Instructions, that when men are to be sent on shore in tropical climates, to procure wood and water, or on other laborious duties, the surgeon, if he consider it advisable, is to recommend for each man, previously to his leaving the ship, in the morning, a drachm of powdered bark (Peruvian,) in half a gill of wine, and the like quantity of wine after the mixture; or, if there be no wine on board, one-eighth of a gill of spirits, mixed with the fourth of a gill of water, is to be used in lieu of it; and the same proportion of each is to be given to the men on their return to the ship in the evening.”

The British Army has been similarly provided, and the medical officers directed to employ quinine as a prophylactic. During the war of the Crimea, the Medical Director of the Army wrote as follows to the Inspector General of Hospitals:

“With reference to previous letters on the subject of administering quinine, and other preparations of bark, as prophylactic remedies, I have the honor again to draw your attention to the matter. From all I have learnt I am persuaded that the number of cases of fever would be diminished by such a course. So convinced am I, especially by the results of the experience of naval medical officers, of the benefits arising from the prevention plan, when followed in localities in which remittent and intermittent fevers are likely to prevail, that I have taken care to provide ample supplies of quinine in anticipation of every possible demand for that article. Having now at command sufficient of this drug, specially provided for that service, to furnish five grains per diem to every member of a force of 35,000 men, I beg you will take such measures as you think proper, with a view to induce the medical officers to employ that remedy, in the hope that it may prove useful in warding off attacks of fever, etc.”

During the preparations for hostilities in China, in 1859, the Director-General issued the following order: ‘That a stock of quinine wine be provided, in order that a ration of it be given to the men previous to and during the unhealthy months, or when the soldiers are required to proceed up the rivers, or on being encamped in the vicinity of marshy ground. A medical officer should be present when the quinine wine is issued, and witness the same being drunk by the men.’

The committee continue their quotations at length from medical writers and travelers, showing conclusively that quinine is the great prophylactic as well as curative agent in malarious diseases. The importance of this circular at this critical period in the history of our volunteer army can scarcely be over-estimated. The great majority of the surgeons of these forces have been little accustomed to the treatment of malarious diseases. The season has arrived when the progress of the war is to transfer large bodies of troops directly into regions where malaria exists now in the most concentrated form. Unless some prophylactic is employed, these malarious fevers will decimate our susceptible army in six months, and render it impotent against an acclimated foe. Happily it is in our power to shield those who go bravely forth to meet the exigencies of war, from one of those consuming forces which threaten the Northern soldier in his progress Southward, viz : malarious diseases. We cannot sufficiently commend the Sanitary Commission for its prompt recognition of the medical necessities of our troops and the distinguished Chairman for the admirable and convincing manner in which he has presented this subject to the consideration of our authorities and the surgeons of the Army and Navy.

PIROGOFF'S operations at the ankle joint, has been recommended in an Order from the Medical Director of the Army of the Potomac, in preference to CHOPART'S, or to amputation above the ankle, in cases admitting a choice. As the operation is but little known, and the order may be extended by the Medical Directors of the Western Divisions, we re-publish, also from the *Times*, the description of the several steps as given by the author himself in an English publication :

‘I commence my incision close in front of the outer malleolus, carry it vertically downwards to the sole of the foot, then transversely across the sole, and lastly obliquely upwards to the inner malleolus, where I terminate it a couple of lines anterior to the malleolus. Thus all the soft parts are divided at once quite down to the os calcis. I now connect the outer and inner extremity of this first incision by a second semilunar incision, the convexity of which looks forward, carried a few lines anterior to the tibio-tarsal articulation. I cut through all the soft parts at once down to the bones, and then proceed to open the joint from the front, cutting through the lateral ligaments, and thus exarticulate the head of the astragalus. I now place a small narrow amputation saw obliquely upon the os calcis, behind the astragalus, exactly upon the sustentaculum tali, and

saw through the os calcis, so that the saw passes into the first incision through the soft parts. Saw carefully, or the anterior surface of the tendo achillis, which is only covered by a layer of fat and a thin fibrous sheath, might be injured. I separate the short anterior flap from the two malleoli, and saw through them at the same time close to their base. I turn this flap forwards, and bring the cut surface of the os calcis in apposition with the articular surface of the tibia. If the latter be diseased it is sometimes necessary also to saw off from it a thin slice with the malleoli.'

It will be seen that Pirogoff's operation originally consisted in dividing the os calcis at right angles to its long diameter, and applying the cut surface to the articular face of the tibia, the malleoli being removed. More recently it has been slightly modified in various ways as removing the articular surface of the tibia, dividing the os calcis obliquely from above downwards and forwards, etc. It will be seen that Pirogoff's operation is, in fact, the operation for ununited bones, the two cut surfaces being placed together for the purpose of obtaining union.

Such is Pirogoff's operation. Now, as to its absolute and relative merits, the author himself thus sums them up:

'1. The tendo achillis is not divided, and so we avoid all the disadvantages connected with its injury. 2. It also follows that the base of the posterior flap is not thinner than its apex, while the skin on the base of the flap remains ununited with the fibrous sheath of the tendo achillis. 3. The posterior flap is not cap-like, as in Syme's method, and its form is therefore less favorable to a collection of pus. 4. The leg, after my operation, appears an inch and a half (sometimes even more) longer than in the three other operations (Syme, Baudens, Roux), because the remnant of the os calcis left in the flap, as it unites with the inferior extremities of the tibia and fibula, lengthens them by an inch and a half, and 5. Serves the patient as the point of support.'

Much has been written for and against this operation. Several of the early cases were represented as terminating unfavorably by the death of the remaining portion of the os calcis, and its final separation. At one period, it was alleged that its projector had himself abandoned it. Recently, however, the statistics of the operation have been collated, and they give a more favorable impression of its value. Its mortality is fixed at about fifteen per centum, the rapidity of the cure equals that of other amputations, and the resulting limb is undeniably the best that can be obtained for direct use.

ARSENIOUS ACID A SUBSTITUTE FOR QUININE.—Brigade-Surgeon TURNER has employed arsenious acid for twenty years in the treatment of intermittent fevers, and on account of the great drain upon the cinchona tree, its failure in India, and his strong opinion as to the equal, if not greater, value of arsenious acid in the above named diseases, he now brings the results of his experience before the profession, in a communication through Sir RANALD MARTIN, C. B., to the Royal Medical and Chirurgical Society, published in the *Lancet*. He considers the fears of any inconvenience or danger arising from the remedy as much exaggerated, and instances the case of a child nine months old, to whom he gave twenty minims of the arsenite of potash within ten hours, repeating the dose on the following day, with the only effect of curing an obstinate quotidian intermittent. Mr. TURNER's success was so marked, that in 1860, the Director-General stated that Mr. TURNER should be thanked for "drawing attention to his successful treatment of intermittent fevers by large doses of arsenic, and steps should be taken by circular, to urge an extended trial of this remedy, and reports requested." The course usually adopted by the author, was to give the arsenite of potash and compound tincture of cardamoms, of each half a drachm; gum mucilage, three drachms; camphor mixture or water, half an ounce; mix. To be given every second hour four or five times, the last to anticipate the expected paroxysm at least two hours.

INDUSTRY OF JOHN HUNTER.—On a young gentleman from the country being introduced to him as one who had come to town to pursue his studies under his directions, he addressed him thus: 'Well, young gentleman, so you are come to town to be a surgeon; and how long do you intend to stay?' 'One year,' was the reply. 'Then,' said Hunter, 'I'll tell you what, that won't do; I've been here a great many years, and have worked hard, and yet I don't know the principles of the art.' After some further conversation, the student was directed to call again in an hour, to accompany the surgeon to the hospital, where, after the business of the morning was over, he said to him; 'Come to me to-morrow morning, young gentleman, and I will put you further in the way of things; come early in the morning, as soon after four as you can.' The young man kept the appointment, and at that early hour in the morning, he found Hunter at work dissecting beetles!

Here we have the secret of John Hunter's success, and of every other man's success who has attained great distinction in any art or science.

History tells us that 'his leisure hours were never allowed to remain unemployed.' He had a very different estimate of the amount to be learned, and the time and industry necessary for its accomplishment, from most people either of that or the present day.—*Dental Cosmos*.

CAUSES OF MILD STOMATITIS IN INFANTS.—The mucous membrane of the mouth is very irritable, being accustomed only to amniotic liquor in a foetal life, and to milk in the early stage of extra-uterine existence. Every change in the diet, therefore, the bad qualities of the maternal or artificial nipples, the use of candy, sucking bags, or alcoholic beverages, coffee, or stimulants of whatever kind, will act as irritants, producing hyperæmia or inflammation, in a more or less severe form. It is by no means common to observe very severe forms of stomatitis after all such preceding causes; on the contrary, the large majority of cases, including those depending on primary acute catarrh of the stomach, and the raising of a large quantity of gastric acid, so frequent in infantile age, are very mild.—*Prof. Jacobi, in Am. Med. Times*.

MEASLES PRE-DISPOSING TO FEVERS.—DR. SHIPMAN, Surgeon to the 17th N. Y. V. M., says, in a recent letter to the *Am. Med. Times*, that "there was one thing that was to me quite a new feature. It was the effect which measles had in rendering the men susceptible to attacks of fever for a long time afterwards. While in the Park Barracks, New York, a great many of our men were affected with measles, and were sent to the hospitals. In time they recovered and joined the regiment, apparently in good health, but in the course of the summer these men were attacked without an exception, and their cases proved the most obstinate of any under treatment, and were protracted, and all assumed a typhoid character."

EFFECTS OF CLIMATE UPON NORTHERN AND SOUTHERN TROOPS.—Comparing the Northern soldier with the Southern, we believe the former will withstand the effects of the climate for a short campaign of a year or more better than the latter; and though the popular belief is divergent to this view, the statistics of our war with Mexico fully sustain it, and the published opinion of no less an authority than Dr. Nott, of Mobile, in the *Southern Jour. of Med. and Pharmacy*, for January, 1847, confirms it.

The statistics of the Mexican War are so remarkable, that we present them as we find them, given in a recent number of the *Evening Post*:

On April 8th, 1848, the Secretary of War made a report to

the United States Senate of the losses of the volunteer forces employed in Mexico. From this, it appears that seven Northern States—Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Indiana and Illinois—furnished, in the course of that war, 22,573 men. Of this force, the total loss from disease was 2,931 men; less than one-eighth of the whole. Nine Slave States—Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, Tennessee and Kentucky—furnished 22,899 men. The loss from this force from disease, and death caused from disease, was 4,315 or more than one-fifth; a very considerable difference in favor of Northern troops.—*Am. Med. Monthly.*

RUSSELL ON AMERICAN MILITARY SURGEONS.—The London *Lancet* in a recent number quotes the following from one of Mr. Russell's letters to the *Times*: "The surgeons remained on the field when all others were retiring or had left. One is reported killed; six are prisoners in the hands of the enemy, engaged in attending the wounded on both sides, and an invaluable aid to the scanty medical staff of the Confederates." This is gratifying to us as a profession. It is a noble tribute to the humanity which characterizes, under whatever circumstances they may be placed, the disciples of the healing art. Far be it from us to depreciate the heroism of the combatant soldier when he rushes to meet, in mortal strife, the opposing force; but there is a heroism of a higher character—the heroism of the men who, after the fierce conflict is over, administer to the wants and necessities of those who have been wounded in the fray. Cool amidst danger, devoted to their humane efforts to preserve life, they pursue their beneficent calling amidst peril and without the hope of adequate reward. What a commentary is this upon the injustice and neglect to which medical officers attached to armies have been almost invariably subjected!

OIL OF VALERIAN IN TYPHUS.—During an epidemic typhus at Toulon, in 1856, characterized by stupor, somnolence, coma and great debility, the usual remedies proved of no great benefit, and M. Barrallier therefore had recourse to the essential oil of valerian. Administering it first to persons in good health, he found that it produced the following symptoms: diminution of the arterial pulsations at first, with subsequent elevation in the greater number of cases; increased heat of skin; marked perspiration with the smell of valerian; feeling of oppression in the temporal region; cephalalgia, most commonly frontal, sometimes very intense; diminution of muscular force, inaptitude for intellectual exertion; inclination to sleep; deep sleep, nausea and salivation in certain cases; dislike to food when

the medicine was given in the dose of thirty or fifty centigrammes; abundant flow of urine, more highly colored than usual, with a smell of valerian. In typhus, the remedy was employed not only against the somnolence and coma occurring in the second or third week, but also at the very commencement of the disease, in order to moderate the nervous irritation. At the more advanced periods it appears to rouse the patients from their lethargic condition. Besides this, there appear as other effects: eyes widely open, intelligence more clear, correct answers to questions, increase of the arterial pulsations, with subsequent depression; diminution in the quantity of urine, and slight perspiration.—*Cincin. Lancet.*

GLYCEROLE OF CHLORATE OF POTASH.—Two and a half drachms of the chlorate, in powder, dissolved in three ounces of glycerine, have been experimented with at Bicêtre, under the direction of Martinet, and found to possess, in that combination, remarkable disinfecting properties. Besides these, the mixture gives the pus, even when of a serous kind, a greater consistence, often like cream, and may by that action, tend to prevent the occurrence of purulent or putrid infection. The preparation is not adapted for wounds or sores of a bright red color, nor for those that are recent or of healthy appearance.—*Edinb. Med. Journ.*; from *Bull. Gén. de Thérap.*)

TINCTURE OF DIGITALIS IN DELIRIUM TREMENS.—Our exchanges continue to bear unequivocal testimony to the value of large doses of tincture of digitalis in the treatment of delirium tremens. In a late number of the *Medical Times and Gazette*, Dr. Francis E. Cavey, of Guernsey, mentions several cases of the successful use of this remedy after the entire failure of the opium treatment. He gave the tincture of digitalis in half-ounce doses, with an equal quantity of gin, and in every case found one dose sufficient. He did not find the digitalis to cause diarrhœa, vomiting, or an increased urinary secretion. One case in which the digitalis was given, was an epileptic, who had also serious disease of the heart—an aortic systolic murmur, with extensive hypertrophy. No evil effects whatever resulted in this case.

Our own experience with large doses of the tincture of digitalis in the insane department of the Philadelphia Hospital has also been very satisfactory, both in cases of delirium tremens, of which we receive a great many, and in cases of high mental excitement usual in the wards of a hospital for the insane. We usually give it in combination with an equal quantity of fluid extract of lupulin, giving a tablespoonful every two or three hours. Sleep usually supervenes after two or three doses have been administered.—*Med. and Surg. Rep.*

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Original Contributions.

ARTICLE I.

LECTURES ON MILITARY SURGERY:

DELIVERED DURING THE SUMMER COURSE OF THE MEDICAL
DEPARTMENT OF LIND UNIVERSITY.

By E. ANDREWS, A. M., M. D.,

PROFESSOR OF SURGERY; SURGEON TO THE MERCY HOSPITAL; TO THE CHICAGO DISPENSARY, ETC.

LECTURE SEVENTH.

SCURVY.

When men are confined for a long period to a diet, exclusively salt, especially if it is accompanied with a total absence of fresh vegetables, they are apt to become scorbutic. Hence, camp life occasionally gives rise to this disease, and it requires the full consideration of the surgeon. It is disputed whether scurvy is caused by excess of salt, by deficiency of fresh vegetables, or by deficiency of potash in the diet. Each of these theories has its advocates, but the limits of the present lecture, do not permit a full discussion of their merits. Fortunately, there is no obscurity in the practical directions for preventing and curing this disease, and indeed it is now almost banished from the public service.

Formerly, this pest scourged the crews of almost all vessels on long voyages, and the camp of almost all armies. So disastrous was it, that a man-of-war would often have scarcely sailors enough on duty to work the vessel into port. In voyages to the polar regions it was particularly troublesome, and the prevalence of cold, darkness and hunger were there

considered causes of its onset. Dr. Hays, the surgeon of Dr. Kane's expedition, made some interesting observations in the polar regions upon the causes of scurvy, which are worthy of remark. In the crew of the *Advance*, it was observed that scurvy afflicted them whenever they were confined to a salt diet, but not otherwise. On one occasion when a party was sent out for a long trip in the darkness, the following facts were noted. The men, thus sent out, ran out of provisions and were obliged to subsist on fresh, raw walrus-meat, and only a starvation supply of that. They slept in the open air, and were exposed not only to cold and darkness, but to exhausting labor and starvation, yet no scurvy appeared among them. They also ascertained that the Esquimaux, who are often reduced to famine, but who subsist entirely on fresh food, never have scurvy. During all this time, those who remained in the vessel, free from hard labor, well clad and warm, and abundantly supplied with salt food, suffered severely from the disease. Among public institutions, such as prisons, orphan asylums, etc., the disease sometimes appears, even when no remarkable amount of salt is consumed, if the supply of potatoes or other fresh vegetables is neglected.

In practical management, the following conclusions are established: First—if men are kept solely on salt food and have no fresh vegetables, scurvy will always appear, after a time. Second—any depressing influences, such as cold, hunger, over-exertion, darkness, debility, or despondency will predispose to the attack, but if the corps has a full supply of fresh meat, bread and vegetables, then scurvy will not be troublesome.

This very statement shows what is to be done. Among the vegetable productions, lemons and potatoes have the highest anti-scorbutic reputation. Lemon juice is taken to sea in large quantities, and successfully given to the men in the navy, as a prophylactic. In the army, potatoes have been lately added to the rations, which is undoubtedly a highly important improvement. In our western territories the officers of our army have found the wild artichoke to be an effectual prophylactic and remedy for scurvy, and they also report that the Indians

who live, in winter, on buffalo meat, and without salt, and on dried berries, never have the disease.

Symptoms.—Scurvy is manifested by a pale countenance, depression of spirits, a great muscular debility, and unusual indisposition to exertion. One early symptom, is a spongy, swollen condition of the gums, with a tendency to bleed upon the slightest touch. In bad cases, teeth become loosened, and even drop out. The tissues of the whole body seem to be in a state of starvation, so that absorption predominates over nutrition. Hence the walls of the blood-vessels become thinned and weakened, so that spontaneous extravasations of blood occur to a great extent, which coagulate and form hard lumps in the flesh. The same poverty of nutrition appears in other organs. Thus old cicatrices, which are imperfectly supplied with blood are entirely absorbed, leaving the wound to open again. Pains occur in various parts of the body, hemorrhages from the mucous canals are common, and fainting takes place on the slightest exertion. Various complications may intervene, and ultimately death occurs from exhaustion or from syncope.

The treatment of this disease is mainly dietetic. The patient must be taken at once from his salt rations and kept on fresh food of all kinds, and especially fresh vegetables and fruits. In this way recovery is almost certain. Special complications may be treated on general principles as they arise, and tonics may be given to increase the strength. On the whole, there is no branch of medicine which yields more certain results than the established treatment of scurvy.

DIARRHŒA.

In all armies in active service, diseases of the bowels are the principal causes of admission to the hospitals.

Diarrhœa and dysentery slay five-fold more than the sword. The causes of this singular fact seem to be as follows: The men in volunteer armies are brought to a complete change of diet, which always tends to excite activity in the mucous coat of the intestines. To this is generally added a change of climate, often from cold to hot, which acts precisely in the same

manner as a change of food. The necessity also of sleeping upon the damp ground, the constant exertion of marching and drilling in the hot sun, and the fact that nearly all campaigns are in the summer season, are abundant reasons for the fact that almost every recruit, within two months of entering service, has an attack of diarrhœa of greater or less severity. Miasmatic influences, and imprudent indulgence in eating and drinking, also come in as occasional causes.

The treatment of camp diarrhœa is different with different surgeons. Dr. Tripler, Medical Director of the Department of the Potomac, and an old army surgeon, is partial to using saline cathartics. When the patient is first seen, he simply gives from half an ounce to an ounce of sulphate of magnesia. After this has operated, the bowels remain quiet for a time, and in mild cases no further interference is necessary. If, however, the case is more severe, he gives opiates and astringents after the operation of the medicine, to prolong as much as possible the stage of quiet. When the tendency to discharges begins to return, he administers another dose of the cathartic, followed, if requisite, by opiates and astringents again. In many cases, he gets along with nothing but one, two, or three doses of the magnesia, no opiates being used. In general, it will be found that the newer the recruit, and the freer the climate from malaria, the freer is the case from typhoid tendencies, and the simpler the treatment required; while the longer the troops are crowded together in unhealthy camps, and the more malarious the climate, the more the disease takes on an epidemic character, and the more unmanageable and terrific does it become in its ravages. Mercurials must be used with discretion, and with proper regard to circumstances. In vigorous new recruits, especially in malarious western regions, a little blue mass often assists very much in the cure.

The following prescription does excellently for such cases:

R	Mass. Hydrarg,	-	-	-	grs. xv.
	Acet. Plumb,	-	-	-	grs. xx.
	Pulv. Opii,	-	-	-	grs. xv.

M. ft. pil. No. xx. Take two after every discharge.

In the really epidemic bowel diseases which break out frequently in camp, mercurials must be used sparingly, as the

cases are of a typhoid character, and the depressing influence of these articles is to be avoided. In short, the surgeon must study the type of the disease, and the diathesis of the men, and adapt his treatment to the particular condition existing at the time. In general, if a diarrhœa is at all obstinate, it will be found impossible to restrain it permanently by opiates and astringents alone. The secretions of the mucous membrane are depraved and irritating in their character, and when they accumulate they increase the inflammation of the alimentary canal. Whenever this occurs, the bowels, though previously made quiet by the treatment, begin again to act. The surgeon, without waiting for the irritation to return to its full height, should clear out the *primæ viæ* by a gentle cathartic, such as sulphate of magnesia, castor oil or rhubarb. The operations of these medicines are by no means as exhausting as the discharges produced by the disease, and after they are over, the bowels are again favorably disposed for a season of quietude, which may be prolonged by opiates and astringents. In this way, alternately moving the bowels by medicine whenever the irritation demands it, and quieting them by suitable means in the interval, the case will generally progress to a rapid cure. During treatment, the patient should remain at rest, either in hospital or in quarters, and not be allowed to go out of camp nor be put on duty.

In the chronic stage, or in adynamic cases, the turpentine emulsion will be found very useful. A combination of turpentine emulsion, strychnia and nitric acid is highly efficient.

The following is a convenient formula :

R	Ol. Terebinth.,	-	-	-	3i.
	Acid. Nit. dilut.,	-	-	-	3ss.
	Strychniæ,	-	-	-	grs.ij.
	Syrupi,	-	-	-	3jss.
	Gum. Acac.,	-	-	-	3ij.

M. fiat emulsio. Dose : a teaspoonful every three hours.

The turpentine and other stimulating remedies of course must not be given in the stage of active irritation, but only in the diarrhœa of debility.

DYSENTERY.

This disease consists, essentially, of an inflammation of the coats of the colon and rectum. The same causes that produce diarrhœa may also result in dysentery, and accordingly we find that it is one of the most fearful scourges of camp life. It is marked by frequent discharges from the lower bowel, accompanied with griping pains, and tenesmus, bringing away abundance of transparent mucous stained with blood. The severity of the suffering is often very great. In bad cases, the disease assumes all the constitutional characters of typhoid fever. The tongue becomes dry and brown; a low fever, with delirium may supervene, accompanied by feeble pulse and disturbed respiration. In the more adynamic cases, the tenesmus at length ceases, and the tenacious mucous is no longer secreted, but a mixture of blood and foul serous fluid escapes from the anus without straining, or even consciousness on the part of the patient. In some cases the disease is epidemic, typhoid in type, and terribly fatal. If it runs on to the chronic stage, there is generally ulceration of the bowels, and almost always a fatal result.

The treatment in mild cases is almost identical with that of diarrhœa. We find it necessary, however, to use opium freely to subdue the pain, and to prevent the excessive and irritating activity of the muscular coat of the bowel. The same principles as to the use of alteratives, astringents, cathartics, terebinthines and tonics, will guide you here as in diarrhœa. There is, however, one resource which is peculiar to dysentery, and that is the use of injections. The inflamed surface of the colon is actually as accessible to topical applications as though it were on the external surface of the body. In the more sthenic cases, however, the muscular activity of the bowel is so great that injections are not well borne. The distention excites violent contractions and pain, and thus does more harm than good; but in the adynamic cases marked by feeble contractions, and a disposition to discharge blood and serum without much effort or pain, injections are well borne and very efficient. In such cases, large clysters of solution of nitrate of silver, forty grains to the ounce, have been thrown up not only without injury,

but with decided benefit. This has, however, seemed to me a rather harsh treatment, and I have used, in preference, strong solutions of alum and tannin with the most gratifying effect. A single injection, after the following formula, sometimes stops the discharges of blood permanently :

R Acid. Tannic., - - - - grs. xx.
 Aqua, - - - - - Oj.
 Aluminis, q. s. ut solutio saturata sit.

This is to be injected in large quantity, and if requisite, retained in the bowel for a few minutes, by pressing a napkin firmly against the anus.

As in diarrhœa, the utmost quiet must be enforced upon the patient, and the peculiarities of type and diathesis thoroughly considered in shaping the treatment.

THE OTHER medical diseases which occur in camp life, do not require a separate consideration, as their treatment is the same as in private practice. The only point about them to which I would direct your attention is the fact, that they are very often epidemic, and have the typhoid character common to most other epidemics.

I HAVE NOW completed my course of lectures upon Military Surgery. In such a brief series, I have necessarily omitted many things which it would be of great interest to discuss; nevertheless I have set before you all the main points of military practice. I have displayed to you, upon the dead subject, all the remarkable peculiarities of gun-shot wounds, and given a brief but tolerably comprehensive outline of the chief accidents common in war, and of the principal diseases prevalent in camps. I trust that the attention you have given these topics, will fit you better for the service, and that in some coming hour, on the battle field, you will realize practical advantages from the discussions we have held upon these important themes.

GLYCERINE, by its strong affinity for water,—acts, in kind, as an escharatic, on raw or mucous surfaces; and some practitioners, for this reason, dilute it one-fourth.

ARTICLE II.

FRAGILITAS OSSIUM.

By ORRIN SMITH, A. M., M. D., Chicago.

A Paper, read at the October Meeting of the Chicago Medical Society, Oct. 18th, 1861.

JUNE 16, 1860.—I was called to see Mrs. G. W. Field, living on North Wells street, aged 40, who had been suffering some years from scirrhus of both mammæ and the glands in the right axilla; the physical signs and symptoms also denoted scirrhus deposit in both lungs, and in the mesenteric glands. The respiration was hurried, to some extent, the respiratory murmur considerably obscured over most of both lungs, with dullness on percussion, and a small secretion of frothy mucus, which did not at any time become abundant. She had a very constant irritative cough, not relieved by expectorants, and only moderately so by anodynes and stimulants, of which she made but a very moderate use. The stomach, for some months after my first visit, digested light food, in moderate quantities, without a great amount of suffering;—still nutrition was never well performed after I saw her, and she continued to lose flesh and strength gradually, the blood-vessels carrying only a moderate amount of blood at any time subsequently. Her pulse was small, irritable and quick; tongue slightly covered with white coat. She had considerable tenderness over the region of the mesentery, and most of the time, an uneasy, painful sensation. As emaciation progressed, enlarged mesenteric glands could be felt through the thin integuments of the abdomen. There was soreness and swelling of the joints of both hips, and some in the knees, accompanied with much pain, and all the usual phenomena of sub-acute rheumatism, which soon yielded to appropriate treatment, although she was never, after I first saw her, entirely free from pain and tenderness along the sciatic nerve. The spinal cord and the muscles along the spine, also suffered, at intervals, from this rheumatic condition, during the remainder of her life—so much so, that from pain, lameness, attenuation and consequent weakness, she was unable to walk

without the assistance of friends, or supporting herself with her hands. The bowels were easily kept soluble by properly regulated diet; indeed, were more inclined to be too loose than otherwise, until the two last months of her life,—as in all cases where diseased mesenteric glands are interposed between the functions of digestion and nutrition. The emaciation became so extreme, that not only the fatty matters were re-absorbed, but the other animal tissues were called upon to that degree, that she distinctly felt and appreciated the want of the animal tissues in the bones, and frequently cautioned her assistants to move her carefully, or they would break her bones,—she, evidently, feeling a want of tenacity in these structures.

Two days before her death, while in a paroxysm of coughing,—a paroxysm not characterized by great force,—while sitting, well supported and bolstered in her chair, she broke the right femur, with a transverse fracture at about the upper third, by the contraction of the muscles, aided, perhaps, by an uneven pressure of the pillow upon which she sat, although she was not conscious of any such inequality. After the fracture, she remained sitting in her chair until I arrived to dress her limb,—a period of about an hour—when I found the broken ends of the bone in contact, and elevated to an angle of about forty-five degrees, making a great deformity. The fracture gave but little or no shock to the system, and was not very tender or painful, and of course not followed by any amount of re-action. It was dressed in the usual way, with the many-tailed bandage and splints. The muscles of the thigh were so attenuated, that after the application of the bandage, the limb more resembled in size, a small arm than a thigh. The limb was well secured by splints, so that it could be moved without danger of misplacement, as her difficulty of breathing and necessities might require, and then rested on a double-inclined plane, and the friends instructed to remove and re-adjust the same as she might desire,—the object being the patient's comfort, no union of the fracture being expected. Her principal sufferings at this time, and for months previous,

were from the want of nutrition, and its consequent thirst, languor, and exhaustion, which were very great.

Two days after the fracture of the thigh, while sitting bolstered up in her chair, with a lady friend supporting her forehead with one hand, and the other over the upper dorsal vertebræ, during a paroxysm of coughing, a distinct snap, or fracture of the bones of the neck was felt by the attendant, and heard by her, and also by all in the room. Her respiration was instantly suspended, and they laid her on the bed; her pulse continued to beat, they judged, for the period of ten minutes, but there was no respiration.

It may also be added, that when the thigh was broken, the fracture was distinctly heard by all in the room. And she immediately said before any examination was made, that her thigh was broken. The little force which it took to fracture her bones, can be inferred by the want of muscular tissue, as before indicated. I did not see the body after death, until it was placed in the coffin, when, on examination, I found more than ordinary motion about the region of the two upper vertebræ of the neck, and have no hesitancy in believing that she died from compression of the spinal cord, consequent on a fracture of these bones, occurring August 1, 1861, a period of a little more than a year after I first saw her.

I am also informed by her husband, who is a man of the strictest truth and integrity, that a sister of hers died in June previous, with scirrhus of about the same length of time; and that a day or two before her death, while lying in bed, she broke both femurs, simultaneously, near their union with the bones of the pelvis, during a fit of coughing. Her history, as I received it from the above authority, would be very nearly a transcript of this paper.

IT IS SUGGESTED that soldiers be instructed to micturate, before going into battle, with a view of lessening, by the diminished size of the empty organ, the chances of wounds of that viscus, and the consequent frequent and fatal complication—peritoneal urinary extravasation.

ARTICLE III.

THE SURGEON:

AN INTRODUCTORY LECTURE, DELIVERED BEFORE THE MEDICAL DEPARTMENT OF LIND UNIVERSITY, SESSION 1861-2. OCTOBER 14, 1861.

By Prof. E. ANDREWS, A. M., M. D.

Published by Request of the Students.

GENTLEMEN :—We live in an hour, such as comes to men but once in a lifetime. Medical science and art, which have hitherto illumined the hours of peace, are summoned to the battle-field to front the grim realities of war; and not only our profession, but all others are mingled in a struggle which moulds the characters of millions, and which will stamp the impress of the coming century.

At such a time, I cannot talk to you of common petty interests apart from the influence of the great convulsion. It is War that speaks, not I. I must talk to you as men to be moulded by the influence of this tremendous hour, for the destinies of another age than that which has just past.

War is a moral tonic. It comes to the social world, as the whirlwind and the earthquake come to the natural. It finds many flimsy, social fabrics in its path, erected for the time of peace. They are cheaply glorious with paint, and gorgeous with stucco, but the sweep of the tempest bears them away like chaff in its passage, until that which is truly strong and giant-like, alone remains.

In times of long peace, men lose their hold on strong first principles. They plan flimsy and insecure schemes of business; their social fabrics are artificially painted, and stuccoed and bedizened with nonsensical observances. Education grows out into distorted and strange forms, and even the learned professions spin theories frailer than cobwebs, and take to forming artificial rules of conduct, and false notions of their relations to the rest of the community.

So then, I, for one, rejoice that this war has come. Not only *our* profession, but others, and the social and civil organizations themselves, have grown up too rank and luxuriant for

safety. They need the tossing of the blast to harden their limbs, and the shock of war to consolidate their strength.

I know that the evils of war are great. There is paleness on many brows. For the first time the nation is shaken by a real danger, and sees flapping over her stars, the wings of a tempest whose thunders mutter of final dissolution. But in hours like this, God renovates communities, and purges away their errors, their luxury and their corruption. It is with throes like these that heroes are born—amid convulsions such as these, nations grow giant-like, and renew their vigor, their youth and power.

Americans had come to fancy that all their institutions were to be established forever, without a struggle. They verily thought that the duty of defending their country was one which could never be practically exercised. Even our civil freedom, since the throes of her birth, has not been put to serious peril. Her infancy was cradled among the green valleys of the east; in childhood she sported securely on the shores of the great lakes; and on the prairies of the west, we have watched with pride the rounding cheek of her youth; but now her majority is attained, the hour of her bridal draws near; this day freedom weds with the sword, and pours out on the battle-field, the red wine of her marriage feast.

In times like these, there are no sluggards: the very air is full of electric life, and honest vigor of action becomes a luxury. Let us, therefore, who are not called to the battle-field, where some of us may lay our bones before another year, let us take a new view of our privileges, responsibilities and duties with the truthful vision imparted by this auspicious hour.

If I am equal to the occasion and the theme, I wish to portray to you to-night, the character of the *True Surgeon* for the present and the coming time.

First, then:—What is demanded to constitute a good surgeon? I answer,—the primary requisite for a good surgeon, is *to be a man*,—a man of courage, a man of moral rectitude, a man of broad views and noble sentiments. Narrow-minded, mean-souled, little-brained men, ought never to

plunge into the learned professions. Their circumstances bewilder them; they become entangled in their learning like a fly in a cobweb; their language is barbarized by technical phrases; their mental vision is obscured by professional squints, and their hearts, cut off from the great life-current of humanity, dry up to nonentities. Such men never grasp the grand and inspiring truths at the core of their profession, but flounder bewildered among its accidental surroundings. Hence, we have lawyers, learned in statutes and decisions, and reckless of justice; clergymen, deep in theology, and devoid of religion; and surgeons, skilled in anatomy and profoundly stuffed with technicalities, but perverted in judgment, rotten in morals, and destitute of sympathy. In one word, they are *not men*; they are only the dried-up shells of preachers, lawyers and doctors, with all the manhood blown out of them.

Among the particular traits which go to make up a manly character, one of the first, and one which is eminently necessary to a good surgeon, is courage. In battle, a portion of the surgeons go with the line, and dress the wounded under fire. In the Crimea, the British surgeons dressed the wounded in the trenches where they fell; and the results, both in their wars and our own, show that bullets have no natural repugnance to killing medical officers. Unless, therefore, a man can tie up an artery with a cool head and steady hand, while the bullets are singing past him, he will not do for a surgeon. Again, he must sometimes walk his hospital day by day, when it is filled with contagious and pestilential disease, breathing an air more deadly than that of the battle field. If he cannot do this without flinching, he will not do for a surgeon.

And again, in civil practice there are cases which quick, skilful, and daring action alone can save; an instant only is given for a human life, and the surgeon who is aghast and hesitates at the emergency, loses his patient. I tell you, gentlemen, these moments will test your courage more severely than bullets whistling across the line of battle.

Another requisite of high professional quality, is breadth of

knowledge, not only of the practical branches, but of those general and preliminary topics which are necessary to constitute a well-educated man. The intensely practical character of the American mind has unfortunately misled many students as to the real requisites of high success. Every year, medical teachers receive applications from men who desire the honors of a diploma, but wish to be excused from attention to, what they call, the non-practical branches. They imagine that but little more is necessary for a physician than theory and practice, materia medica, and obstetrics; and for a surgeon, than anatomy, surgery, and a case of instruments. One man who claimed to be eminent already in surgery, objected to pathology as not practical; it was not necessary to study the nature of the disease, the practical thing was to cure it. God help his patients; I think they had better send for a butcher, as being the more practical man of the two.

Gentlemen—true eminence is not built on such small foundations. The old kings of Egypt erected many vast pyramids, which have defied the assaults of time, but none of them were built with the small end downward. Make broad the foundations, and then build on them with a liberal hand. There is a great error prevalent as to what is really practical; an error which has consigned to hopeless inferiority, many a capable young man. Common sense, which is another name for a well-balanced mind, is essential in all professions; hence, everything is practical to a surgeon which gives him breadth of thought, evenness of judgment, and influence in the community.

The fact that some men have achieved notoriety on what, at first glance, seems a very narrow basis, is no contradiction of my position. A closer examination of the characters of these men, show that they are all of two classes. First, men who have blown up a kind of balloon-greatness by a special talent for imposing upon the public; and secondly, men who have made good their early deficiency by industry and superior natural capacity for gathering knowledge. The latter will always be found to have acquired in this way, a broad foundation before they attain any substantial eminence.

There is no doubt, whatever, that if circumstances permitted, it would be better for every young man to take a four years' college course, before commencing his proper medical studies, though at present, such an extensive preliminary course is out of the reach of many, who may yet become superior surgeons and physicians. But fortunately, knowledge is power, however obtained, and the man, who, by industry will acquire it, though it be by hours and moments, stolen from other occupations, may reap its full fruits. Now, gentlemen, the way to commence is very plain. It is perfectly easy to point out a course, by which a young physician, even of deficient preliminary education, can become the recognized superior over most of his fellows of equal natural talent. He must, like Elihu Burrit, the learned blacksmith, make up by after study, his lack of early advantages.

The first years of a practitioner's life are not usually fully occupied with business. Of the leisure hours on hand, let one-half be devoted, for six years, to general literature and science, and the other half to reading, writing, and hard thinking directly upon his profession. I guarantee to any young practitioner of fair capacity, who will do this faithfully, a superiority over his fellows, which will be publicly known and recognized during the rest of his lifetime. A good education necessarily implies a variety of knowledge. Each kind of study leaves only its own special mark on the mind, and hence, acquisitions of several kinds are necessary to a full development. The languages are of constant use in prescriptions, and in technical terms; but besides this, the exercise of translating gives a man ease of grasping thought, and facility in expressing it. Mathematics confer precision of reasoning, and accuracy in mechanical contrivance, which a surgeon especially requires; while natural sciences give breadth and scope of thought. I earnestly urge a liberal knowledge of these various branches. But beware of becoming so entangled in the meshes of your studies, that they become master of you, and not you of them. A few men become so fascinated with these pursuits as to follow them to the exclusion of all professional improvement, and to the loss of public confidence in business. You should

pursue them not as an end, but as a means, in order that by self-culture, you may bring to your professional duties a finer and more powerful mind—that you may become more perfect men, more splendid surgeons.

Some physicians have become so enamored of literature, as to actually forsake their profession for it. Some have studied mathematics and forgotten physic, and others have followed metaphysics until they have lost sight of earth altogether.

There is a class of men who become so absorbed in natural science, as to forget and neglect their proper surgical and medical studies. Endowed with unusually sensitive minds, their contact with nature in her magnificent solitudes, begets a joy that abstracts them from the more puny operations of art. The mental effect of this error is peculiar. A man may contemplate the beauty of mountain cliffs, of misty valleys, of stars and rosy sunsets, until he undervalues by comparison all other things. He may wander, so to speak, in the secluded valleys of science, where the south-wind rustles warm in the foliage, where the streams babble, and the wild vines trail their purple clusters, until like Actæon rashly beholding the beauty of Diana, his nature is changed and loses its manhood. He becomes too shrinking and sensitive to deal with the disease, ugliness, and depravity of man. In fact, he has reposed so long amidst the beauty of the works of God, that he is no longer fit to come out and do battle with the world, the flesh and the devil. It is true such men are very estimable, but they are not practical. Contact with the world stings them sorely, and they retire constantly to the shelter of their favorite studies, until at length the world says they are very learned, but too fussy, and too much devoted to birds, insects, plants and snakes to attend properly to the wants of the sick. Study natural sciences therefore, not to an inordinate excess, but just enough to cultivate that breadth of thought and gentleness of heart required by a true and noble surgeon. Other branches of general learning require similar cautions. You are not to become eminent in them, but you must make use

of them, to render your intellect quick and bright, and kindly and strong in your professional duties.

One thing which is necessary to a sound and reliable surgeon, is an integrity beyond the reach of selfishness, and a sense of honor above the possibility of stain. There are occasions in surgery, as in all other arts, when sacrifice of principle may yield a temporary advantage. A tumor may be excised to the great astonishment and admiration of the beholder, but not always to the advantage of the patient. A limb may be amputated for a large fee and great éclat, when to save it would yield less pay and no renown, for the extra labor involved.

I am sorry to say that there are men who allow their judgments to be warped by these considerations, and who will even act with entire recklessness of a patient's welfare, for the sake of a brilliant surgical operation. In short, they are scoundrels, and men who put themselves under their charge, fare as men do, the world over, who trust their interests in scoundrels' hands.

Such surgeons are no common villians. Other men may have palliations for their crimes. The thief may be in want, the ambitious man only desires power, whose exercise may be correct, and even the revenger flatters himself that he is exercising a species of justice; but for him, who has dipped his hand unnecessarily in living blood, who shall seek an extenuation. His heart is no longer that of a man, but of a hyena, that cannot wait for the dead to glut its desire. There can be no more pitiable sight than an old surgeon, at the end of his days, who has lived such a life. He has spent his time amidst horrors and bloodshed, without a single noble incentive to soften the ugliness of the retrospect, and we may well believe that the memory of the murdered will haunt his dying pillow. But of you, we expect better things,—things worthy of this inspiring era, when the very air is full of the cry, *Quit yourselves like men!* Let your memories be those of a surgeon who has done his whole duty. He has saved the shattered limb, and restored it to vigor; he has cleared the vision of the blind; he has laid his hand where the crimson blood was spouting out the life, and stayed its flow. He

has insulted Death in his own dominions, and flung the monster off, after he had fastened on the very throat of his victim. Life is longer, and humanity is happier for such a man's existence.

Since the very object of our profession is to relieve suffering, it may seem strange that any advice should be offered on the subject of humanity ; but just as the almoners of public charity, by constant contact with pecuniary distress, sometimes become the most hard-hearted towards the poor, so surgeons may become callous, by the constant presence of suffering, until they are not only cold and heartless in manner, but actually brutal and reckless of pain in their operations. It is to be regretted that some teachers of surgery, now dead, but who were men of talent while they lived, have exerted a most pernicious influence in this regard. It was said by the old Latins, "*nil de mortuis, nisi bonum*,"—nothing but good should be spoken of the dead ; but I prefer the still older maxim of the Egyptians, that "the dead must abide the judgment of the living." I repeat, therefore, that some men of excellent attainments and great mental power, have, during their lifetime, set an example of brutal roughness of manner, which has had a most disastrous effect upon their disciples. Young men impressed with the splendid skill and commanding talents of these instructors, have naturally imitated their faults, fully as much as their virtues. Accordingly, there are in almost every part of the United States, some practitioners, who, to this day, believe that a domineering harshness of manner, set off on great occasions by a few paragraphs of profanity, are the genuine marks of a superior surgeon. Nothing can be more erroneous. The ancient ideal of a true knight, is just about the real model for a surgeon. A courage that never wavered in front of danger, and a heart that was never cold to distress,—kind, courteous and brave. Of the famous Chevalier Bayard, the praise was, "*sans peur et sans reproche*,"—without fear and without reproach. Another bold warrior, after his death, was thus lamented,—“And thou wert the kindest man that ever put spear in rest.” An epitaph, that could hardly be put on the tombstones of some

of our departed surgeons. I am well aware that a surgeon should be calm. His sympathy should not boil over into a hysterical excitement; it *must not disorder the lightest motion of his hand*; but he must carry in his heart, that abiding kindness which will insure him against exciting a single useless terror in the patient's mind, or a single needless pang of bodily pain.

Among the qualities of a true surgeon, not the least important is his enthusiasm, for on this depends his enjoyment, and consequently, his diligence in his work. You occasionally hear men say, that the *study* of medicine and surgery is very interesting, but the practice is tedious and dull. Now I can assure you, that to a well-trained mind, this is an unmitigated lie. Practice is dull, only to those who do not think, reason, and study about their cases; in short, who are routine practitioners, not acting from the deductions of a living reason, but raking forever among the ashes of a dusty memory. Make your practice a perpetual study, and it will be a perpetual enjoyment. To him who attentively thinks of all his cases, the truths of nature unfold themselves in wider and wider fields. Every day you reach a higher stand-point, and a broader view, every week you master some practical difficulty, and every year you learn to conquer some bodily evil, which before defied your efforts. Progress, like this, will make any man enthusiastic, and the enthusiastic man is happy.

But if a man considers his education complete, when the seal is applied to his diploma,—if, instead of continuing to develop, he merely subsides into a mechanical way of taxing his memory for rules of practice, he will certainly not find it agreeable. There is a class of such physicians who grow worse as they grow older. Their very experience is a danger to them!—they learn nothing by it, and in fact, are never as good practitioners as when they first graduated.

Gentlemen,—set it down as certain, that there is something wrong about an old physician who thinks that practice is not interesting. Among well-balanced minds, there are, however, some which naturally give preference to medicine, and others to surgery; so that to a certain extent, this division of

the profession into two parts, marks two classes of minds. This preference depends on differences of the two positions, and the relative mental qualities brought in play. Thus medicine requires more breadth and philosophical depth of thought than surgery, but less precision and mechanical ingenuity; and accordingly, minds seek the sphere which best indulges their favorite bent. There is a difference, too, in the social relations of the two classes. A good physician secures a warm, earnest attachment from his patrons. There is a circle of families who look on him as a permanent and confidential friend, and whose attachment is not valued by him at its mere product in dollars and cents. A man of fine sensibility cannot but highly prize this steady and earnest regard, which is the reward, peculiarly, of medical skill, and moved by its stimulus, he will naturally engross himself, more and more, in that kind of practice. The surgeon, on the other hand, has a less warm but a more glittering reputation presented to his ambition. His patrons are transient. They come, perhaps, hundreds of miles for a single operation, and being relieved, return to their homes, and disappear from the circle of his acquaintance. Of course, they cannot stand in the relation of intimate daily friends. To balance this, they look upon an eminent surgeon much as they do upon a renowned soldier. They yield the tribute of high admiration to one who dares to put his hand to the machinery of life, and can, with impunity, take out its living wheels. If a surgeon's renown is less warm than a physician's, it is wider and more splendid.

As might naturally be expected, surgeons and physicians, considered as classes, have each their peculiar faults and virtues. As surgical appliances are less complex, and more easily understood than medical, so surgeons, on the average, are more clear and accurate in their ideas than physicians, and less in danger of running away into obscure theories, which neither are, nor can be definitely proved. Even quacks are obliged to keep somewhere near the truth, when they meddle with surgery. But on the other hand, these very advantages draw many inferior men to the surgical ranks. As surgery is easier to comprehend, too many of its votaries

are superficial and narrow—not possessed of sufficient philosophical power to grasp easily the truth of medicine. As its renown is glittering and brilliant, it attracts men, too often, who are more cold and selfish, than physicians—men incapable of warm friendships, over eager for notoriety and greedy of gain. So it has been in time past. I call upon you to take this stain away from the profession, by bringing to it hearts full of generous emotions; hearts whose rich pulses of youth live on in riper age; hearts that love nobleness and despise meanness, and that feel for the sufferings of the afflicted.

The difference of mechanical talent in different men, is a reason, also, why they love this art in unequal degrees. A first-rate surgeon must be a natural mechanic. This trait depends mainly upon the clear conception and easy memory of forms, localities and distances. To him that possesses it, the human frame is transparent, with all its nerves and vessels; his mind's eye sees through the clotting blood of wounds, to the vessels that yield the stream, and his unerring finger makes out with mathematical certainty, the nature of injuries, which others fumble over in vain for a solution. To such a man the human frame is plastic, and is moulded to his wishes; while to another, it is full of dangerous accidents to alarm the unwary operator.

Mechanical ingenuity is also necessary in devising, changing, and applying instruments. A million of dollars will not buy sufficient instruments for a man who has no ingenuity, while he who has this talent, has an armament in his brains sufficient for every purpose, and which will get him out of every difficulty. One man will amputate a thigh, creditably, with only a penknife and a gimlet, while another will bungle the operation, though he have an instrument-factory full of knives and saws.

The last and greatest qualities which I mention for the surgeon, are *knowledge of the art, and industry for its improvement*. Let no man touch its threshold who is not determined to add to its resources by discoveries of his own. We have already made great advancement, since the day when

chloroform was unknown, when smooth cuts were stuffed with lint, and stumps, after amputation, had to be dipped in hot pitch, to stop the blood; but still greater things await us in the future, and he that seizes on new truth, and embodies it in practice for the benefit of man, is doing service for all time.

The history of the past is finished and sealed up; its virtues and its errors were great, but let the dead bury their dead. To-day, God opens a new volume in the nation's history, whose very first page is blazoned with war and carnage, and calls for men of sterner and of loftier mould than before. Come up to the great work of the age, and do your part like men, and the results will place you among the world's benefactors.

I believe in the onward destiny of the human race, and I desire that our profession shall play an honorable part in the world's increasing progress. Make yourselves, therefore, superior to the fathers, and be ye ready for the coming hour. Heaven rules over the convulsions of nations, and works from each, a higher destiny than before. After a time, peace will return, laden with worthy fruits, and when at length the destined changes are wrought out, and the gorgeous fabric of a new civilization shall be complete, no shadow dimming the splendor of its halls, the united nation will rejoice in it, and God, looking upon his work, once more pronounce it very good!

ARTICLE IV.

THE MERCURIAL TREATMENT OF MORBUS COXÆ.

By W. GODFREY DYAS, F.R.C.S.

A case of hip-joint disease has lately presented itself to my notice, which, though not itself remarkable for any special interest, yet recalls to my mind, some points in connection with this form of disease that may be not unprofitably considered. The case is that of a child, five years old, with the right lower extremity, for several months past, deformed,

painful and lame. The diseased limb is not merely to appearance, elongated, but it is really so, for on placing the child on his back, and putting the spinous processes of the ilia on the same line, real elongation is manifest. On looking at the patient behind, some curvature of the spine is apparent, but on further examination, it would seem to be caused merely by position. The child has become thin, and his appetite is impaired, but as yet, no serious inroads have been made on his system. When he stands, his right foot is advanced, the leg being slightly flexed on the thigh and the thigh on the pelvis, the toes alone touching the ground. On gently pressing the head of the femur against the acetabulum, or on pressure in the groin over the front of the acetabulum, pain is complained of. Thus far I present the outlines of the case, which may be recognized as one of morbus coxæ. Its features are, as might be supposed, sufficiently marked, to prevent their being confounded with the signs of any other affection; yet, notwithstanding, the case, as I am informed, has been pronounced by some, one of dislocated femur, and this opinion has been accompanied by the recommendation not to interfere with it, owing to its long standing; whilst others, with more correct notions of diagnosis, in recognizing it as morbus coxæ, have been satisfied with restricting their efforts to prescribing the use of Sayre's splints, omitting all other curative measures whatever. It is not my intention to write a formal and methodical treatise on this subject. My object is simply to advocate the claims of a plan of treatment in the cure of this disease,—certainly not to the exclusion of others, but as being that which, in certain stages of this affection, is attended with more beneficial effects than are seen to result from the use of any other internal medicine. This mode of treatment is the mercurial, the existence of which dates from the year 1834. The merit of originality in connection with its introduction, is undoubtedly due to Dr. O'Beirne, one of the Fellows of the College of Surgeons, in Ireland, who, in that year, called the attention of the profession to it as a remedy in white swelling and hip-joint disease. When first published, his views met with the most determined

opposition. His opponents saw in the proposal, nothing but the subversion of settled principles, that had already received the sanction of authority. But to this Dr. O'B opposed the result of his experience, and did so with success. The most prejudiced yielded, and mercury became, in the Dublin school, the established practice in the commencement, and likewise in the ulcerative stage of hip-joint disease. It was also adopted in London, and on the continent of Europe, by many eminent surgeons. Amongst others, the celebrated Lisfranc, of Paris, deemed it so important a discovery, that he deputed two distinguished foreigners (Signor Manni and M. Pironi), to wait on Dr. O'B., to "congratulate him upon having effected such a valuable improvement in the treatment of a disease previously so intractable." In the *Gazette Medicale*, 1845, Lisfranc bears ample testimony to the efficacy of this plan of treatment. "The salivation once set in," he observes, "the pain disappears, as if by magic, and this, perhaps, is one of the therapeutic methods, in which the relation of cause and effect, between the remedy administered and its results is incontestable, on account of the rapidity and constancy with which this result is manifested." But though this mode of treatment has had the sanction of eminent men, it must be conceded that, notwithstanding its striking advantages over other methods, it has not been so generally adopted as it merits, owing, either to surgeons not being aware of its value, or to their previous views being in opposition to it, or perhaps to a feeling of disappointment from having employed it at a period of the disease when it was not only inapplicable, but positively injurious. In employing the mercurial treatment, we must remember there are, at least, two ways of doing anything, and we should, therefore, ascertain accurately beforehand, in what respect the right way differs from the wrong. In view of this, we should commence the treatment at an early period of the disease; and not defer it until the latter shall have advanced to complete disorganization of the joint. This delay would be a misapplication of the proposed means, and would supply an additional instance of what, being a remedy in one stage of a complaint, may be positively injuri-

ous in another. The mercurial must be introduced rapidly into the system, not slowly and in alterative doses. The former mode tends to benefit, the latter never fails to impair, the serofulous constitution. This doctrine may seem strange to some who are wedded to an obsolete dogma of the schools, but it is the doctrine of Graves, one of the most accomplished physicians of modern times. It is admitted by Crampton, by Carmichael, whose anti-mercurial tendencies are well known, and by many others of less note, though men of standing, who possessed in their hospital-practice the fullest opportunities of testing this treatment. Though O'Beirne fully confiding in this remedy when conjoined with rest, sought not the assistance of other means, still the surgeon should not reject any, merely because it is subordinate and secondary. He will, therefore, avail himself of all the aid derivable from local abstractions of blood, by cupping above the trochanter and leeching over the front of the articulation. At a more advanced stage, he will employ blisters and issues. From issues much benefit is often derived. They maintain the ground gained by measures already referred to, and largely contribute to prevent a return of the disease. For many years I have had abundant opportunities of appreciating the importance of this plan of treatment, which I feel confident, is able to cut short the disease in its first stage, to lessen pain and suffering, and to bring about a cure without deformity. It is not to be supposed that success in every case attends its employment. Universal success can scarcely be said to follow any line of treatment in any disease. It is only contended that the mercurial plan of treatment, when conjoined with due attention to rest is more successful than any other in hip-joint disease. But in this, as in other forms of disease, cases may arise that will baffle the best directed efforts of skill, until at length complete disorganization of the structures composing the joint be effected. Even at this stage, when nature fails in her efforts, art still is supposed to have one resource remaining, in the resection or excision of the articulation. This operation, not unknown to the ancients, as may be inferred from some vaguely expressed statement of Hippo-

crates, has been recommended in more recent times by White of Manchester, and performed by Mr. A. White, of the Westminster Hospital. Mr. Fergusson successfully performed it in 1844, having, as we are told, "meditated its performance for more than ten years, without meeting a single case where it would be justifiable." After its recommendation and performance by British surgeons, the operation was introduced into France by Vermandois and Petit-Radel, who, we are told by Velpeau, "revived this suggestion without modifying it." Velpeau states, that in 1831, he knew of but a single example of exsection of the coxal extremity of the femur practised on living man. But reckoning Mr. A. White's as the first operated on, the next that is seen on record is Mr. Hewson's, of Dublin, operated on in 1823. This case has been published by Leopold (*Über die Resection*, Wurtzburg, 1834). The result was unsuccessful, the patient having died in three months after the operation. From that date, 1823, there have been twenty-five cases operated on for morbus coxæ, in England; fourteen of which have terminated successfully. It is said, "these operations were all performed in cases where there was no hope of ultimate recovery, and as far as the judgment of the surgeon extended, death would have taken place, had the operation not been performed."—(*Lancet*, 1837.) It has not, however, as yet, generally met the approbation of the profession. The chief objections against it may be summed up under the following heads: It necessitates wounds in diseased parts. It seldom removes the whole disease, but leaves behind degenerated tissues. It is followed by profuse suppuration, and the cure, when effected, is tedious. These objections are over-ruled by the advocates of the measure, who, in deciding on it, are not determined by the pathological condition of the joint, nor by any arbitrary stage of the disease, but propose the operation, if the patient be dying, and there is no hope of saving him by the ordinary means. They contend that the condition of the acetabulum, cannot be ascertained before operation, and that instances have occurred, where it has been successfully executed, although the acetabulum affords evidence of disease at the

time of the operation. The particulars of nineteen cases have been published, in every one of which the acetabulum was diseased, in two "there was scarcely a trace of acetabulum. In three the acetabulum was filled with a fibro-gelatinous mass. In six, the gouge was employed for caries. In three it was perforated, and in the others it was more or less affected."—(Hancock *Lancet*, April, 1857.) So far from perforation of the acetabulum being a barrier to the operation, Mr. Hancock maintains, that even under these apparently unpromising circumstances, excision may be performed with safety and benefit. The subject under consideration leads me to notice the report of two cases of hip-joint disease, contained in the June number of the MEDICAL EXAMINER. In both, excision of the articulation was performed. The circumstances of each case were unfavorable to a successful operation. In the first, the acetabulum was found to have entirely lost all definite boundaries by absorption of its rim. It was converted into a broad, shallow fossa, and was half filled with granulations. "The head of the femur was carious, denuded of cartilage, and lay with its rough burr-like surface in contact with the flesh on all sides." In concluding the report of the case, it is stated, "that ten days after the operation, it was doing remarkably well." The second case was quite as unpromising as the first. In this, the superior extremity of the femur was excised, and "some suspicious portions of the ilium were removed by the gouge." For eight months after the operation, the patient "was daily passing flatus from the external wound," showing a communication with the rectum, which it was impossible to trace with a probe. Another abscess on the inner side of the thigh having presented itself, and being lanced, gave more ready exit to pus and wind, which were in consequence, transferred to the new opening. In the former case, we are informed of the improvement affected by the operation in ten days after its performance. In the latter, we are merely told, as the result of the operation, "that the opening on the outer side began to heal." It is to be regretted, that these cases have not been more satisfactorily detailed. As they now stand, they are,

for all statistical and otherwise practical purposes, positively worthless. To inform us of the condition of the first case in *ten days* after excision, and leave us without further instruction in the matter, cannot enable us to infer anything as to the ultimate result. Ten months would have been more to the point. The probability is, the subject of it, this moment, is beyond the reach of all surgery, conservative or otherwise. The second case constitutes, perhaps, the most formidable form the disease assumes,—that wherein a carious state of the cotyloid cavity exists—where there is perforation,—communication with the rectum, and pelvic abscess. I am not aware of more than two such cases on record, where recovery resulted. One was under the care of the late Professor Colles. The other was Mr. Hancock's case. In the former, the patient recovered without operation; in the latter, the femur was excised, and the floor of the acetabulum removed. Now, in the particular case under review, the reader is left to conjecture as he pleases, as to the result. What practical benefit there is in thus publishing cases, it is impossible to see. It only compels the eager inquirer in science, to act the part of Tantalus of old. It does not contribute to the amount of knowledge required to judge of the merits or demerits of a comparatively new operation.

From a comparison of the results, when, on the one hand, the disease is uninterfered with by operative proceedings, and on the other, subjected to resection, I cannot see that much has been gained to science by this operation. If we separate the cases in the last stage of hip joint disease into two classes—those in which the femur is dislocated, lying on the dorsum illi, and those in which it still continues in the socket—we will find many of the former and a few of the latter recover by the efforts of nature, assisted by such means as directly or indirectly support the system. More than this cannot be said for the operation. A late writer tells us that Moreau, the father, with the hope of removing the carious portions of the cotyloid cavity by means of the chisel and gouge, proposed to two patients, in presence of M. Champion, to perform upon them the operation of the exsection of the femoro-iliac articu-

lation; but they refused and—recovered! This conveys a caution in urging the operation, and will cause the thought to arise, that many, if not all those cases supposed to have been cured by operation, might have done equally well if let alone. I do not altogether adopt this view, but I know it is entertained by some of the most eminent surgeons of the present day.

The question then arises, what cases, if any, are suitable for operation? According to the German Schools, the cases most suitable are the young—those in whom there has been spontaneous luxation, where it is assumed the same amount of mischief has not been effected in the cotyloid cavity as where the head of the femur still remains in its socket in the midst of pus and disorganized tissues. In the former, if the cotyloid cavity be not much affected, its reparative powers, which are considerable, may be called into play, (when not in contact with the diseased femur,) so as to enable it to recover its normal state. On the other hand, in the opinion of Jager, Erichsen and many others, the operation is contra-indicated, where the patient is advanced in years, where the femur remains in the socket, where there are extensive purulent collections in the pelvis or along the course of the femur, and where there is evidence of internal tubercular disease. Unfortunately, the cases in which the femur remains in the socket, are, by a great many, the more numerous, and these are the cases wherein the operation has but little chance of success. But some will not allow any case to be suitable for the operation. Syme condemns it altogether. Erichsen and Jager restrict it to cases which are comparatively few in number, and in which the chance of recovery is, perhaps, as good without, as with the intervention of operative surgery. Brodie speaks as ambiguously as the Delphian Oracle, and says it should be performed “only in those cases where unequivocal advantage may be gained by it.” In this unsettled state of professional opinion, perhaps the safest rule of practice that can be deduced from the imperfect data we possess, is not to undertake the operation, unless the constitutional condition of the patient and the incurability of the local affection impera-

tively require it. Unless, in fact, the patient is dying and there is no other chance. In a word, it should be an operation of *necessity*—not one of expediency.

CHICAGO, October, 1861.

REMARKS BY THE EDITOR.—We think the above article of Dr. DYAS scarcely does justice to the subject of the surgical treatment of hip-joint disease. While we fully agree with him, that, in the early stage of the disease, judicious internal, or constitutional treatment is of much importance, we have the most abundant proof, that in all stages, proper surgical appliances and operations can be resorted to with the happiest results. If the writer of the article had made himself as familiar with the medical literature of the last few years, relating to this subject, as he is with the eminent English writers of a little older date, we are quite sure he would not have maintained the doctrine that resection of the head of the femur was to be resorted to *only* as a *forlorn hope*. If he will refer to the published transactions of the *American Medical Association* for 1860, he will find the surgical bearing of the subject very thoroughly discussed; and instead of the twenty-five cases to which he alludes, he will find, carefully tabulated, *one hundred and ten* cases of resection of the head of the femur for caries, the first dating back to 1817.

Of the one hundred and ten cases, thirty-six died, two reported unfavorable, and seventy-two recovered with a more or less useful joint. Neither do we think his strictures on the two cases mentioned in the report of a clinic, by Prof. ANDREWS, published in the June number of the EXAMINER, justly applied. He seems not to have appreciated the fact, that said report was simply the substance of clinical observations, made on cases *then under treatment*, one of which it was expressly stated, had been operated on only “ten days before,” and of course, could not yet be reported complete. But we can assure Dr. DYAS, and all others, that the records of these cases are still being kept, and in due time they will be given to the medical public in a form reliable for tabulation. We will

simply add, that Case No. 2, to which Dr. DYAS alludes, is still living, looking well and hearty, for we saw her cross the street with only the aid of a cane, almost as quickly as we should, only three days since.

N. S. D.

The Clinique.

CHICAGO MEDICAL AND SURGICAL DISPENSARY.

Service, Prof. E. ANDREWS, Attending Surgeon.

Reported for the EXAMINER.

Gun-Shot Wounds.—GENTLEMEN :—This patient is a soldier in Col. Mulligan's regiment, and was shot at the siege of Lexington. You observe that the bullet has traversed the forearm obliquely, cutting both the radius and ulna, one of the orifices being near the middle of one edge of the forearm, and the other on the opposite edge of the wrist. I will question him, and endeavor to ascertain from his position, at the moment of injury, which was the orifice of entrance, and which of exit.

Question.—Where were you when you were wounded?

Answer.—At Lexington, Sir.

Q.—What were you doing when you were shot?

A.—We were coming back from the hospital, Sir.

Q.—How is that?

A.—Why, you see, the hospital was outside of the lines, and they brought us word that the enemy was killing the surgeons and the chaplain, so we went out and drove them off, and bayoneted a dozen of them, and coming back, I was shot as I held my arm so, (*showing the position*).

Gentlemen, this man's allusion to the fight at the hospital, may justify me in a moment's digression, to render a tribute to the bravery of the surgeons in that unfortunate fight. Two

of them from this city, Surgeons PARKER and WINER, I personally know to be worthy of all praise. The hospital was, as this man says, outside of the lines. The enemy at first fired on it, with red-hot shot, with the intention of burning it. Men were cut to pieces by the balls, and even the wounded were shot as they lay on the floor. Subsequently, the enemy took possession, and made the surgeons prisoners. At this juncture, Col. Mulligan's men made a charge with the bayonet, and cleared the building of the enemy, piling the balls with dead, and making the floor swim with blood, but the enemy rallying in greater numbers, retook the place,—driving out our men, and on the retreat, this soldier was wounded. During all this time, our surgeons were exposed to the fire, and continued, without flinching, to stand to their duty, calmly dressing the wounded, among the bullets and red-hot shot.

From the position of the parties, you see that the ball must have entered at the upper orifice and came out at the radial side of the wrist. It therefore fractured both the radius and ulna, and severed a number of important organs. By questioning, I perceive that he has no sensation in the little finger, nor in the ulnar side of the ring finger. This shows that the ulnar nerve was cut; that the flexor tendons of most of the fingers were severed, is manifest, by the loss of motion in all except the index finger and the thumb.

Gun-shot wounds are remarkable for the amount of shock they produce. This man says he had a severe chill for three hours after the wound was received. In bullet wounds of the extremities, the shock does not of itself prove fatal, but when a limb is torn and shattered by a cannon ball, it is not uncommon for the patient to die without reaction. As the wounds are lacerated and contused, there is seldom any considerable hæmorrhage. Even the thigh has been cut off by a cannon ball without serious loss of blood. Prof. PALMER, surgeon of the 2d Michigan regiment, informs me, that at the battle of Bull Run, he sent his assistant, under fire, armed with tourniquets, ligatures, etc., for the express purpose of promptly suppressing hæmorrhage, but, that out of fifty wounded, not a

single case required that kind of assistance, as there was no serious loss of blood in any instance. In fact, he deemed the common instruction, to send a portion of the assistant surgeons with the line of battle, to be a useless risk of life to these medical officers. His advice is, that the wounded should all be brought into the field depot for attendance. I cannot wholly agree with these conclusions, because it is well proved that gun-shot wounds do, in some instances, bleed alarmingly, and require instantaneous attention. I had one case where the ball cut one side of the subclavian vein, and well nigh drained out the life of the wounded man, before I reached him. In the French army, in the Crimea, this matter was well understood, and a certain number of tourniquets were distributed among the soldiers, with instructions how to use them in emergency. This benevolent effort was brought into ridicule and disuse, by the blunder of one of the soldiers. The man observing a comrade wounded, and bleeding dangerously from the jugular vein, *applied his tourniquet around the neck*. Fortunately, he observed the alarming effects upon the respiration, and loosened it in time to avoid fatal asphyxia.

Gun-shot wounds are often clogged with foreign bodies, such as buttons, pieces of clothing, gravel, sticks, fragments of bone, and the projectile itself. These, of course, are to be removed whenever possible. Besides the objects just enumerated, there is a stratum of dead and contused flesh, surrounding the track of the ball, which is virtually a foreign body. From this fact, you will readily perceive, that a union of the wound, by first intention, is out of the question. The stratum of dead tissue, decomposes and gives rise to foul, offensive, and often irritating discharges, and the amount of suppuration is very great. In fact, the unhealthy appearance of gun-shot wounds, induced the belief, formerly, that there was something poisonous in the gunpowder, which envenomed the bullet. This idea is now exploded, and the mechanical peculiarities of the injury, fully explain its destructive character.

The best treatment for this class of wounds, is usually a cold-

water dressing. Straps and sutures are useless, and poultices are injurious. The latter confine the pus, and decaying shreds of flesh in the wound, and by favoring their decomposition there, cause erysipelas. Besides, they are troublesome to prepare, and require too much attention, which is no small consideration in military surgery, where an excess of labor comes on the hospital attendants. Water dressings, on the contrary, are easily applied, they are always attainable, they keep the wound clean, and finally they are powerfully antiphlogistic. For these reasons, military surgeons hold them in high esteem, and the results justify their encomiums. As this wound implicates the bones, it will be necessary to apply splints, as in any other fracture. Undoubtedly, the rotary motion of the forearm, will be lost, and the hand very much stiffened and impaired in its use, but it cannot be avoided. Such are the chances of war, and we can only commend this brave fellow to the rewards of a good conscience, and to the relief of a United States' pension.

Service, Prof. Wm. H. BYFORD, M. D., Attending Physician.

Reported for the EXAMINER.

Ozæna.—GENTLEMEN :—Inflammation affects the nasal passage in different degrees of intensities,—from the slight catarrh, to the more destructive forms of ozæna, in which parts of the mucous membrane, the periosteum, and not unfrequently, even the bones are destroyed. Exfoliation of the bones often takes place, to such an extent as to let down the bridge of the nose, and, by removing the septum, lay both cavities into one great cavern; while the breath becomes intolerably fetid, and acrid discharges keep the lips and *alæ nasi*, chapped, excoriated and ulcerated. These severe forms of inflammation of the contents of the nasal passages, are apt to be connected with some specific taint in the system. Syphilis, in the very young infant, shows itself, often a few days after birth, in the form of ozæna or “snuffles,” as it is called in these young patients. As you have seen, doubtless,

in the wards of the Marine Hospital, ozæna is a troublesome symptom in some of the syphilitic patients, so generally exhibited to you there. In scrofulous persons, too, inflammation of the nasal cavities is apt to become an obstinate affection; and it is not rare to find patients, troubled with this form of disease in middle, and even advanced life, who date the commencement of their disease from early childhood. Scrofula is a vague term, and we are apt to attribute to it too many forms of disease, because we know of no more plausible and definite causation.

This boy, apparently in the enjoyment of good health and fair vigor of constitution, came to me, three days ago, complaining of very fetid breath, obstructed nostrils and soreness upon pressure on the middle and side of his nose. The trouble commenced about four years ago,—(he is now about thirteen years of age), and was observed first during his convalescence from a severe attack of scarlatina, when it amounted only to an inconvenient running from the nostrils, which at the time, was not considered worth much attention. It has been gradually becoming worse, notwithstanding the use of various remedies, during the last three years. He is now very much troubled with the fætor of the breath, soreness, bleeding and stuffing of the nostrils. He says, that in the morning when he first awakes, it takes half an hour's diligent work to so clear the nostrils that they permit the passage of air in the smallest quantity, and that from three to four times in the day must this painful and disagreeable operation be repeated,—each time causing more or less loss of blood. As far as can be seen up the nostrils, the mucous membrane is very red and much thickened; but I cannot observe any ulcerated patches, which may often be seen, nor can I learn that there has been any discharge of bone. But the probability is, judging, particularly from the disgusting fætor of the breath, that there is ulceration of the membrane, and it is to be feared, that there is, also, caries of the bone, somewhere, deep in the numerous tortuous passages and cells which communicate behind the nasal openings. There are not many other affections with which ozæna is likely to be confounded.

You will more frequently be in doubt in distinguishing between it and polypus nasi; but, in addition to the circumstances that the polypus may nearly always be seen, when large enough to prove inconvenient, the obstruction from a polypus is permanent and not removable by the most strenuous efforts of the patient. There is, also, ordinarily very trifling, if any, fœtor in the case of polypus; while this symptom is early, persistent and prominent in ozena.

I regard this case as one of the inflammatory sequelæ of scarlatina, and, at present, a local affection, unaccompanied by any important constitutional taint; so that I am now treating it with a very simple local remedy, which I have so frequently seen followed by successful results, that I very generally prescribe it as an item of treatment in most cases of this kind:

R Iodine, - - - - - grs.x.
Chloroform, - - - - - ʒj.

Mix and dissolve.

This prescription is used by applying the open vial containing it, to one nostril, while the other is closed with the finger, so as to prevent the air from entering. As much of the vapor is inhaled, in this way, as can be taken with the inspired air, until the patient is conscious of a slight effect from the chloroform. He should now desist for ten minutes, and then inhale through the opposite nostril in the same way, and to the same extent. This should be repeated two or three times a day, persistently, for a length of time. The secretion of the schneiderian membrane is modified almost immediately upon the beginning of this inhalation. Although the boy has used this preparation but three days, as you hear him say, he is already much improved. This morning he had no more trouble in freeing his nostrils than could be accomplished by one or two ordinary efforts at blowing; no hard or inspissated mucus rendered the use of the finger and tweezers necessary. This is not more than the usual good effect I find from the use of this vapor. If the inflammation has not extended deep enough to destroy the integrity and function of the periosteum, the salutary effect wrought upon the membrane is sufficient to

inaugurate the healing process in very many cases; while, should caries have already begun, it favorably influences the disease, so that as soon as that process is over, the further destruction is arrested. In specific conditions of the inflammation, specific constitutional remedies must accompany the use of the local. After the inhalation has been persevered in for several weeks, it often happens that its effects are less perceptibly beneficial, and the case comes to a stand-still, or retrogrades somewhat. When this happens, we should increase the proportion of iodine to the amount of chloroform,—say fifteen grains to the ounce,—and it may be thus gradually increased to $\mathfrak{D}j.$, or $\mathfrak{D}ij.$ to $\mathfrak{Z}j.$ Other remedies may be as beneficial, probably, as this one, when properly applied to the mucous membrane of the nose; but I think no other mode of using them, than by inhalations, will answer so well. The cavity of the nose is so complex, that injections but imperfectly reach many of its remote parts, if at all, as the stream cannot be made to follow all the tortuosities, or penetrate many of the cells connected with it. The volatile nature of iodine and chloroform enables us to impregnate, with their vapor, the air penetrating the nostril, and this vapor is carried wherever the air finds its way. Should there be any objection to the vapor passing the glottis, it can be snuffed with short, instead of deep inspirations; but the inflammation often affects, contemporaneously, if not continuously, the mucous membrane of the fauces, pharynx, larynx, and bronchi, and is just as beneficially influenced, by the remedy in those parts, as in the nose. The inhalation of remedial agents in the form of powders, such as cephalic snuffs, etc., although calculated to do good, is less efficacious than when vaporized.

NOTE.—At the October meeting of the Chicago Medical Society, Dr. REILLY read a paper on the *Use of Inhalations in the Treatment of Inflammations of the Nasal Passages and their Appendages*,—which paper was ordered to be published. The foregoing, however, covering the same ground, in the main, it is not deemed necessary to do more than give one or two illustrative cases from the paper, in addition:

During the early part of May last, while visiting a patient in the North Division of the city, I was consulted by a brother of the patient, with reference to a case of chronic catarrhal cephalalgia of some eighteen months' standing, the history and symptoms of which are as follows: the patient is a man of about forty years of age, married, of active business habits, strumous diathesis. Had been under treatment about seven years at the East and here, for some disease of which I got but a vague and unsatisfactory idea. About eighteen months since, he was seized with a heavy, dull pain between and over the eyes, in the region of the frontal sinuses, gradually extending upwards, in the median line, to the vertex; this pain was aggravated without any apparent cause; was accompanied by temporary partial blindness, unsteadiness of movement and giddiness, suffusion and congestion of the eyes, with a copious milky secretion, soon becoming viscid, and obstructing vision; the sense of fulness in the frontal region was intensely painful, and easily excited by rapid movements, coughing, sneezing and loud talking. Usually these symptoms gradually disappeared, without further noticeable occurrence: but, occasionally, relief was obtained by the sudden giving way as of a sac, and the copious discharge of a thin, clear fluid, not acrid, but sometimes very offensive as to its odor. Such rupture was usually caused by some muscular straining, while bending down or at stool, and the discharge was commonly quite forcible, the fluid gushing from the nostrils in a stream. Accompanying these phenomena, at one time, was partial deafness in the left ear, resulting apparently, from an inflammation of the membrane of the eustachian tube, and relieved by a copious puriform discharge from the ear.

At the time I saw the gentleman, he was unable to raise his voice above the ordinary conversational tone, or to sneeze or cough; walked with much deliberation, being cautious about jarring himself by sudden motion. His eyes were suffused, and nose, at the base and root, red and congested in appearance. He had been treated in a variety of ways; stimulating diaphoretics, mercurial alteratives, and general antiphlogistics had each been tried, and all without relief.

Judging this to be a case of morbid condition of the mucous membrane, due to some specific irritation, by which the function of the membrane had become perverted, while its sensibility was increased, it seemed to me that local medication was desirable, and that little was to be expected, as, indeed, had been already proved, by general treatment. But little reliance, I was aware, was placed on inhalations, and yet I knew of no more efficient way of reaching the seat of the disease, namely : the schneiderian membrane, and mucous membrane of the ethmoidal cells and frontal sinuses ; and aware of the success achieved by one or two members of the profession in long-standing troublesome cases of bronchial catarrh, by the use of inhalations of chloroform and iodine, I determined to make the trial. Twenty grains of iodine were dissolved in an ounce of chloroform, and the vapor inhaled slowly and steadily through each nostril alternately, ceasing when the anæsthetic effect of the chloroform became perceptible ; and this was persisted in, night and morning for some six weeks. At the end of that time the inhalation was discontinued, and when about a month since, I met Mr. D., in the Board of Trade, of which he is a member, he was able to cough, sneeze and halloo as vehemently, to jump and run as actively as ever he was. The cure, however, is not a complete one ; for he informs me, since, that after any unusual mental excitement,—a more than ordinarily busy day, or a too close application to business, and occasionally, without any such cause, he feels the dull, heavy pain between the eyes, premonitory of an attack ; but he instantly has recourse to his vial of iodized chloroform, by which, in the course of the day, he is entirely relieved of the threatening symptoms.

Case II. is even more marked in its prompt relief. R. C. ; ætat forty-five ; American ; occupation, superintendent of a large manufacturing establishment ;—came to me, August 15th, 1861, complaining of fœtid discharge from left nostril, and dull, painful sense of fulness at the root of the nose extending to the inner canthus of the left eye ; sense of fulness more marked at sometimes than others ; “ takes cold ” easily,

sneezes and "nose runs" from slight exposure ;—followed a severe cold contracted about two years before. On examination found mucous membrane of both nostrils reddened, and a slight touch with the probe in the left one, very painful, exciting the lachrymal secretion profusely, and causing violent sneezing. Ordered the iodine and chloroform, grs.xx—-3j. Saw the patient August 22d ; inflamed condition of membrane subsiding, discharge very much less ; passed curved probe up freely, merely causing tears to start, and some little efforts to sneeze afterwards, but very little, if any, pain ; pressure at base of nose, borne well. Inhalations continued. September 5th ; he had not used the iodine for four or five days. Felt completely well. Have met the gentleman within ten days, and thinks himself permanently cured.

Some five or six years since, Dr. DAVIS commenced the use of iodine in this manner in tuberculosis, accompanied by harrassing cough, in tubercular laryngitis, and in inflammations involving the fauces and schneiderian membrane, and with a good degree of success. I do not know that its use has been made known to the profession, nor, so far as I can learn, is it prescribed by any physician of this city, except Drs. DAVIS and BYFORD. The latter gentleman has used it quite frequently, I believe, and very successfully in the chronic catarrhs. Its ease of application, by which the costly and complicated inhaling apparatus is dispensed with, its grateful effects, and, so far, its success would seem to warrant a more thorough and extensive trial than it has, as yet, received.

F. W. R.

Selections.

THE MEMOIRS OF DR. MARSHALL HALL.

Reprinted from the Lancet.

So long ago as 1841, whilst the illustrious English physiologist, Marshall Hall, was battling with the Royal Society at home, for so much of recognition of his labors as may be implied by publication in the "Philosophical Transactions," the

writer of this article heard Flourens, in a public discourse at the *Jardin des Plantes*, rank him with Harvey and Bell as one of a constellation of discoverers, which did not admit a fourth. It has been well said, that foreigners are, in some sense, a contemporaneous posterity. They survey the achievements of living genius uninfluenced by the disturbing passions that local proximity and personal competition engender. The judgment of Flourens is certainly, in this case, but an anticipation of that of after ages. Although those who best knew Marshall Hall could not help feeling the liveliest sympathy for the mental sufferings which he endured during the promulgation and establishment of his discoveries, and however bitter may be the self-accusing reproaches of those who combatted his doctrines, denying their truth with invective that savored more of personal envy than of philosophical caution, the world at large will rejoice that in this instance, as in many others, opposition served to rouse to greater exertion and to the production of more various and more logical proofs. In listening to the accusations of infirmity of temper, of oversensitiveness, so often and so pertinaciously urged by his opponents against Marshall Hall, one would think that these qualities barred all right of fame; that a discoverer has no business to have human resentments; that a sense of wrong endured deprived him of all claims to gratitude for benefits which he may truly be said to have showered upon mankind. Have these opponents ever reflected that, in dwelling upon the sensitiveness of Marshall Hall under unworthy treatment, they are uttering their own condemnation? It is a confession of personal motives. The infirmity of Hall—if infirmity it were—was that of a noble mind; it was, like the keen sagacity and absorbing love of truth that led to his discoveries, an attribute of the same intellectual and moral character. He who has made, and who knows he has made, a discovery fraught with benefit to mankind, cannot be indifferent to the reception of his gift—that is, if he be an honest man, not only great, but good. And this, beyond all cavil, Marshall Hall pre-eminent-ly was. The greatness of the man, as a physiologist and physician, will not now be denied. No biography could prove this so effectually as his own writings. The value of his contributions to science we all acknowledge. But all cannot know what amiable, what pure and lofty sentiment adorned his private character. To show how well, deep and unaffected piety and domestic virtues can consort with the most exalted intellect and the most persevering pursuit of scientific truth, we take to be the chief and cherished object of the memoirs of Dr.

Marshall Hall, edited by his widow. To exhibit so admirable an illustration of this union of moral worth and intellectual grandeur is to confer an obligation upon society, hardly second to that conferred by the promulgation of the most useful discoveries. This task could by no one be so fitly or so completely executed as by Mrs. Marshall Hall. Not only because the opportunities of the wife must necessarily be more extensive than could fall to the lot of any other person, but also because in this instance the wife possesses the rarer qualifications of remarkable intelligence and superior literary capacity. We cannot avoid heartily congratulating the public upon the course of events which resulted in the undertaking of this biography by Mrs. M. Hall, instead of by "an able physiologist." We entirely approve the judgment of the friend who, being consulted upon the question of passing the book through editorial hands, replied that "it would injure the proposed biography to place it in the hands of any professional author or writer, with a view to having it dressed up. It would thus lose more in freshness and interest than it would gain in the way of polish." Those who read the work—will not be of opinion that the author needed much literary assistance. The narrative flows freely and perspicuously, lighted indeed by the warmth of affection, but not the less chastened by never-failing good sense.

Years ago there was published in this journal a short biography of Marshall Hall. It is needless to recapitulate in chronological order the story of his life. It is one, indeed, full of interest and of instruction, and will long be referred to as an example of the triumph of industry,—which some say is the essential quality of genius,—prompted by an ardent passion for the investigation of truth. Hall was a self-taught man. His early education was very imperfect. He applied himself with rigorous perseverance to the task of achieving a mastery over the Latin language, and succeeded so well, although the time devoted to it was subtracted from medical study, that in passing his examination at the College of Physicians he was specially complimented by Sir Henry Hallford upon the elegance of his Latin. This example may serve to encourage many a student, fretting under a sense of deficiency in this respect, and perhaps regarding the new educational curriculum of the Medical Council as a serious bar to his entry into the profession, to rely upon himself, and to overcome by his own will that difficulty which early neglect had thrown in his way. He may be assured that when he has thus acquired the language he will find his faculties better trained for the

career of observation and reflection before him than if the Accidence had been drummed into him by the ordinary method.

Marshall Hall was one of the few men who, having commenced their professional career in the provinces, have made a successful migration to the metropolis; and still more remarkable will this success appear when it is remembered that he at no time held the office of physician to a London hospital. His brilliant scientific and successful professional labors were all due to his own energies and sterling character; he owed nothing to the adventitious circumstances which are commonly and truly held to be essential to success. Yet no man was better fitted to shine as a clinical teacher; his faculty in diagnosis had been early and continuously cultivated; his power of demonstration to others was lucid and impressive in the extreme; as a lecturer few men have ever surpassed him in the accuracy of the knowledge he imparted, perhaps none ever equalled him in the rich suggestion of fertile thought. The student who had listened to one of his discourses went away glowing with the enthusiasm of a newly-kindled and new-seeing love of his profession; he felt that he had profited far beyond the acquisition of the particular facts of doctrines imparted to him—he felt new powers within himself, and saw before him fields for the exercise of his faculties hitherto undreamed of. Yet this man, before whom all the teachers of his day must have paled, was an unsuccessful candidate for the chair of Pathology at University College. This is not indeed the only instance of a man being rejected because he was too good; but it is not the less a matter of regret that the institution which had been honored by the teaching of Charles Bell, should have wilfully lost the irretrievable distinction of having numbered amongst its professors two out of the three great historical names in Pathology. Marshall Hall had an intense love of teaching: to the loss of personal comfort, to the injury of his professional income, and ultimately to the sacrifice of his health, he pursued this vocation. For some considerable time he lectured twice in the day at two schools situated at two extremes of the town. The result of this strain upon his physical powers was to lay the foundation of that disease in his throat which carried him to his grave. A routine reader of dry excerpts might not feel the exertion; but a teacher like Hall, giving earnest utterance to exuberant thoughts, seeking to animate his hearers with that love of research which burned within himself, could not pursue this course with impunity. The flame consumed the lamp.

But we are indulging too far in our own reflections, and are neglecting the "Memoirs." The narrative is full of points of attraction. The picture it reveals of domestic affection and happiness, of the tender husband and of the watchful father, is one of touching beauty. Passages of travel and description abound, for Hall was an ardent admirer and keen observer of Nature in all her works.

Here is a good story well told :

"Dr. Hall had for a friend and near neighbor, at Nottingham, Archdeacon Wilkins. This gentleman was engaged in the authorship of a well-known work called 'Body and Soul,' and had sent to Dr. Hall some of the proof-sheets for perusal. Dr. M. Hall having retained these longer than was convenient, Dr. Wilkins facetiously wrote a note to the following effect: 'Dear Dr. Hall,—Do send me back my body and soul; I cannot exist any longer without them.' The note was given to Dr. Hall's man-servant, whose curiosity led him to press its sides so as to be able to read the contents; for it was long before the modern fashion of envelopes. He rushed, aghast, into the kitchen, exclaiming, 'Cook, I cannot live any longer with the Doctor!' 'Why, what's the matter?' 'Matter enough,' replied the man; 'our master has got Dr. Wilkins' *body and soul*, and I have too much regard for my character to stay where there are such goings on!'"

Dr. Hall's first work was on Diagnosis, but his reputation as a practical physician was first made by his work on the Diseases of Women, and in the early part of his career his practice lay chiefly in this department; but "when," he says, "it became publicly known that my attention was directed to the nervous system, I gradually lost sight of the female disorders." His commentary upon Specialism is striking. "A physician in London," he remarks, "may have a reputation for knowing *one* thing well, *or* for knowing *all*; but he cannot have a reputation for knowing *two*. It is singular how steady my income was during this change of practice."

But other duties now compel us to break the chain that has long enthralled our attention to this book. We recommend it not alone to the medical practitioner and student, but to the general public. As a narrative, it is more interesting than a novel; as the memorial of a great English Worthy, it will be perused and preserved with pride; as an incentive to honorable toil and the practice of virtue, the story of the rise of Marshall Hall, deserves to take rank amongst the most favorite tales of the triumphs of genius.

All this is well told. Every page reflects honor upon the

dead, and credit upon the author. Some critics may urge, that another might have produced a better biography of the physiologist than his wife. We doubt it. It may be true that we lose the record of many things which his wife could not know, or could not tell. But, on the other hand, we gain a richer and nearer insight into the man than any one else could possibly supply. The best testimony to the fitness of Mrs. Hall for the task lies, we conceive, in the very objection that is made to her. So well has she acquitted herself, that we close her book, not wearied of her subject, but stimulated by the desire for further details. So well has she sustained our interest in Marshall Hall, that we long to learn more of him. Some great men have fallen wonderfully in public esteem when their lives have been written; they have been crushed, as it were, under the dead weight of their biographies. Not so with Marshall Hall. Already enrolled by the acclamation of the scientific world, amongst the most illustrious of those who have benefitted mankind by their discoveries, his fame derives fresh glory from this simple story of his life, which reveals to us, a man of unostentatious piety, of warm domestic affections, and of sterling moral worth.

AMPUTATION OF THE CERVIX UTERI.

By J. MARION SIMS, M. D.,

SURGEON TO THE WOMAN'S HOSPITAL, NEW YORK.

(From the Transactions of the Medical Society of the State of New York.)

Amputation of the cervix uteri has long been an established operation. Lisfranc frequently performed it for what he considered incipient carcinoma. Recent investigations in uterine pathology, however, have demonstrated the fact that his cases were not cancerous, but simply those of chronic inflammation with induration and hypertrophy of the cervix. At the present time, Huguier, of Paris, probably performing this operation oftener than any other surgeon, believes that most displacements of the uterus depend upon chronic enlargement of the cervix, and, laying aside all the local remedies usually employed in such cases, resorts at once to amputation, for which he claims an almost unvarying success.

This operation has been frequently performed by Dr. Emmet and myself, at the Woman's Hospital, sometimes by the knife, at others by scissors, and several times by the ecraseur. A few cases will illustrate our practice. Mrs. E., aged 32,

the mother of two children, the youngest three years old, had a muco-purulent vaginal discharge with profuse and somewhat painful menstruation ever since her last confinement. Examination revealed great engorgement and hypertrophy of the cervix uteri with granular erosion. She was treated as an out-patient for several months without improvement, and was eventually admitted to the Woman's Hospital. She was treated here for four months without any marked benefit, and it was at length determined to amputate the cervix.

The os was split open laterally nearly to the insertion of the vagina. The tissue was of almost gristly hardness. Instead of amputating the cervix squarely, the anterior half of the cervix was first removed, cutting in the direction of the os internum, after which the posterior half was removed in like manner, cutting in the same direction, and leaving a conical excavation with the apex upwards, this being done to remove as much as possible of the indurated tissue. This mode of operation should not be imitated, however, for the cicatrization of the wound almost obliterated the cervical canal which is now very small, notwithstanding repeated incisions and other measures for dilatation. The os is a little round opening, hardly large enough to admit a No. 1 bougie, while to the touch the cervix seems to be sitting upon instead of projecting into the vagina.

To guard against the unfortunate result in this case, I adopted the rule of amputating the cervix at two different sittings; thus, splitting it from side to side as before, removing one half, and leaving the parts to cicatrize till the next menstrual period had passed, then removing the other half. I continued to follow this plan in general until an incident occurred in November, 1860, which entirely re-models the whole operation.

A lady from a distant State, aged forty-six, a widow for many years, and the mother in early life of two children, was the subject of procidentia uteri, of fifteen years' standing. She menstruated regularly, her general health was perfect, and she suffered only from the mechanical inconveniences of the displacement. The cervix was elongated, and there was a fibrous tumor as large as an English walnut, in the posterior wall of the uterus. The depth of the organ was three and three quarter inches. She had worn a Meigs' ring for several months with scarcely any relief, as the cervix protruded through and presented at the os externum, despite every mechanical agency. Her physician fully recognized all the difficulties of the case, and proposed an amputation of the

cervix, but was unwilling to perform it himself, and sent her to the Woman's Hospital.

As she was in great haste to return home, I determined to remove the whole cervix at one operation. When she was fully under the influence of ether, Dr. Pratt, the House Physician, informed me that the ecraseur was broken, hence there was no alternative but to amputate by the cutting process. For this purpose I used scissors, expecting the hemorrhage to be less than by the knife. I removed about five-eighths of an inch of the cervix, cutting at right angles, and within half an inch of the vaginal insertion. On beginning the operation, I intended to leave the cut surface to heal by the granulating process, which usually takes five or six weeks, but while sponging the wound and waiting for the hemorrhage to cease, I discovered that the stump could be covered over with healthy vaginal tissue, in the same manner that a stump of an arm or a leg is covered with skin after amputation by the circular method. This was done by passing four sutures of silver wire through the anterior and posterior borders of the wound, which, when tightly drawn, brought its edges into apposition in a straight line across the middle of the stump, covering it completely, but leaving a small central opening for the os, just over the outlet of the vertical canal.

The operation was followed by no constitutional disturbance. The sutures were removed at the end of a week, the parts having healed entirely by the first intention.

Mrs. W. aged 34. Married at 19. Sterile. Was admitted to the Woman's Hospital in January, 1861. She had suffered for eleven years with menorrhagia, accompanied with severe pain in the back and loins, which ceased during a period of six years, then returned at intervals, and had continued for five months, without intermission, before her entrance into the hospital. She also had leucorrhœa whenever the hemorrhage ceased. The uterus was enlarged and somewhat retroverted. The cervix was elongated, hypertrophied and indurated, and the posterior lip was covered with florid vegetations which bled profusely on being touched. I at once proposed amputation, to which she readily consented. The operation was performed in the manner before described and with the same results. She now menstruates regularly, the flow lasting but three days, and is otherwise well.

Mrs. R., aged 38, the mother of two children, eighteen and sixteen respectively, and for five years a widow, was subject to leucorrhœa of ten years' standing. She consulted me in February, 1860. She had an enormous enlargement of the cer-

vix uteri, with chronic inflammation, and a profuse discharge of an albumino-purulent character. She was treated by scarification, *potassa cum calce*, and other local means, for four months, with some improvement, but it seemed utterly impossible to effect a cure. I saw her in October and November, and again in January, and found her in about the same condition as on her first visit. I then suggested to her amputation as the speediest and best method of cure, but it was inconvenient for her to submit to it at that time, and the usual course of treatment, under such circumstances, was adopted. Her improvement was slow and unsatisfactory, and she at length insisted on having the operation performed, which was done April 29, 1861, in the presence of Dr. Parigot, of Brussels, Dr. Holcomb, of New York, and Dr. Pratt, of the Woman's Hospital.

The intra-vaginal portion of the cervix was nearly an inch in length and two inches in diameter. The anterior lip was a little larger than the posterior. The operation was performed as in the preceding cases, namely, by splitting the cervix laterally, and removing first, the anterior, and then the posterior half, by means of scissors. After the hemorrhage had ceased, the vaginal mucus membrane was drawn over the stump, as in the other cases, and secured by four silver sutures, two on each side of the cervical opening. There was no suppuration, no pain, no febrile excitement, and indeed the patient felt so well that, on the next day, she insisted on getting out of bed and going to the parlor; for prudential reasons, however, she was confined to her room a week. Here was a case which had been under treatment for fifteen months at various times, with little improvement, cured in a week, by this simple operation. The neck of the uterus now presents an appearance so normal that one could hardly believe that it had ever been the subject of disease or of a surgical operation.

In the old method of amputation, the suppuration continued for five or six weeks, and sometimes longer, before the parts were entirely cicatrized. According to this plan, there is no suppuration, the parts healing by the first intention and the patient becoming well in a week. In the former, there was danger of pyæmia; in this, there is little, if any; in the former, there was risk of degeneration in tissue—in this, there is none. In the former, the parts contracted as they healed; in this, they remain normal. It might have been supposed, *à priori*, that this operation would have been attended with troublesome hemorrhage, but in each case it ceased as soon as the vaginal tissue was drawn over the stump, and in no in-

stance was a ligature used. In all three of the cases, menstruation has been easy since the operation, though the os was smaller in each than natural, and required to be enlarged by sight incisions.

In amputating the tonsils, it is not necessary to cut out the entire gland; the removal of a section will suffice, as a large part of the remainder will disappear by absorption. In removing an intra-uterine polypus, it is not essential to cut the pedicle close to the wall of the uterus; if an inch of it is left it will disappear. So in amputating the cervix uteri, it is not necessary to cut it off even with the vaginal insertion to insure a good result, for whatever is left will be decreased by a modified nutrition, just as we see after amputation of the arm or leg.

Book Notices.

REPORT OF A COMMITTEE OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT, ON THE ALLEGED DANGERS WHICH ACCOMPANY THE INHALATION OF THE VAPOR OF SULPHURIC ETHER. Boston: David Clapp, Printer. 1861.

Boston's bantling, Sulphuric Ether, is in danger of being nursed to death. Our Committee has endeavored to prove too much. And, as in all cases of over-zealous care, the object of the solicitude must suffer.

When Drs. HODGES, HAYWARD, TOWNSEND, JACKSON and UPHAM, the gentlemen of the above Committee, were appointed to report on "the alleged dangers" etc., we believed that this moot question would be definitely and satisfactorily settled, and we looked for the publication of their report with no little interest. For, notwithstanding the notorious Bostonian predilection for its own form of the boon, the discovery of anæsthesia gave to suffering humanity, the eminent names composing the Committee,—names which have for years graced the annals of American medical science, in its every branch,—were to us, a guaranty that all that intelligent research, philosophical argument and indefatigable industry could accomplish, would be given to the solution of the problem: *Is the production of insensibility, by the vapor of Sulphuric Ether dangerous?*

If this question is answered at all, in the Report under consideration, we leave it to our readers to judge, from an impartial review of its main features, how far that answer is in the negative;—hesitating, for ourselves, only as we would not pre-judge the case, to say that to our mind the capabilities of the vapor of sulphuric ether for dangerous results and complications, have never before been so strongly presented. But our readers shall judge for themselves.

Passing over the not inconsiderable portion of the Report, which discusses the comparative merits of ether and chloroform,—it is to the analysis of alleged deaths from ether we take exceptions. The Committee have gathered, by extensive correspondence, newspaper and journal notices, and careful scrutiny of the periodical literature since Dr. Morton's discovery, every instance (41) of alleged fatal result from the inhalation of ether. We subjoin for comment, the following cases:

Case 1. Hotel Dieu of Auxerre, France, 1847. A man, fifty-five years old, after having breathed sulphuric ether, was operated on for cancer of the breast, and died during the operation, with evident symptoms of asphyxia. The ether was inhaled from a Charrière's apparatus. "The want of care in administering the ether, which was given in a manner likely to produce asphyxia, and the insufficient means used for the restoration of the patient, sufficiently explain the cause of death."—*Exposition et Histoire des Principales découvertes Scientifiques modernes*, par Louis Figuier, Paris, 1851, t. ii., p. 282.—*Gaz. Médicale*, 4 Mars, 1845, p. 170.

Case 16. Dr. C. P. Johnson, Richmond, Va., 1853. A negress of middle age, had, three months previously, undergone resection of the parts adjoining the symphysis of the lower jaw, for an osteoid cancer of the parts. The disease re-appeared and rapidly invaded the neighboring structures, involving a considerable portion of the remnants of the body and ramus of each side. The patient's appearance was cachectic. A complete disarticulation was decided upon, and sulphuric ether was administered. The operation was tedious. After the separation of the diseased mass, the branches of the internal maxillaries gave so much trouble, that one, if not both, carotids were tied. The regularity of the patient's stertorous breathing was not interrupted till just before the close of the operation. As soon as this was noticed, some

brandy and water was passed into the fauces, but was regurgitated with the production of one or two spasmodic actions about the glottis, which were the last vital manifestations that occurred. Artificial respiration, friction, etc., induced no response.

The tissues were found ex-sanguine at the autopsy.—*Committee's Correspondence*.

Case 19. M. Barriere, Lyons, France, 1852. A female, aged fifty-five, in a weak and bad state of general health, underwent excision of the superior maxillary bone. Sulphuric ether was given from a sponge placed in a bladder. Death occurred during the operation. It was thought possible that it might have been due to the hemorrhage.—*Gazette des Hopitaux*, June 18, 1853.

Case 20. Dr. G. de Oettingen, Dorpat, Russia, 1847. Constantly increasing anæmia, on account of a gangrenous ulcer of the leg, rendered amputation necessary in the case of an old man, seventy years of age. Sulphuric ether was administered from a common bottle, having an opening large enough to include the nose and mouth of the patient. The operation was completed, but the arteries were not tied when the indications of approaching death were noticed, and which shortly occurred with symptoms of syncope. There was no hemorrhage.

The autopsy gave no explanation of the death.—*Committee's Correspondence*.

Case 23. Dr. ———, New York, 1860. "A patient with hernia had been laboring under symptoms of strangulation for some time, and was in a desperate condition. A cutting operation for his relief was resolved upon. He was fully anæsthetized with sulphuric ether, and suddenly, during the progress of the operation, showed symptoms of prostration, and soon died."—*Committee's Correspondence*.

Case 25. Dr. ———, New York, 1860. "A very large, old, scrotal hernia, had, from some cause, become irreducible. Inhalation of sulphuric ether was resorted to, and, while the patient was under its full influence, the hips being raised, and the head allowed to be forcibly flexed upon the chest, the taxis was resorted to. The large mass of intestines very suddenly receded into the abdomen, and just at the moment the patient was noticed to be in a dying condition, from which he could not be recovered."—*Committee's Correspondence*.

It is intimated that too little attention was probably given to the state of the respiration and the pulse. The absence of an autopsy in this instance is greatly to be regretted.

Case 27. Dr. J. Y. Bassett, Alabama, 1847. It was proposed to apply the actual cautery in a case of tetanus. Sulphuric ether was administered by a dentist. "At this time the patient's pulse was good, and there was no signs of an immediate extinction of life. In one minute the patient was under its influence; in a quarter more he was dead—beyond all my efforts to produce artificial respiration or to restore life. All present thought he died from inhaling ether."—*Amer. Jour. Med. Science*, Vol. 18, p. 293.

In cases 1 and 25, the deaths are alleged to be due to *asphyxia*, and the Committee claim that it (the asphyxia) was "brought about by wholly avoidable causes,"—which allegation and claim is also made in two other cases we do not quote. In Nos. 16, 19 and 20, "the character and circumstances of the operation certainly absolve the ether" (p. 11, of *Report*). In Nos. 23 and 27, the disease is alleged to be the cause of death. In twenty-three cases, death occurred within twenty-four hours, in seventeen of them, "death was immediate or nearly so" (*idem*). In the whole forty-one cases, the "probable causes" of death assigned are as follows: In four, asphyxia; in twelve, shock of accident or operation; exhaustion; shock, complicated with exhaustion, with age, with general health, with hemorrhage, etc.; in one each, pneumonia, pleuritis, bronchitis, erysipelas and bronchitis, capillary bronchitis, intense local inflammation, comminuted fracture ossa innominata and perhaps, fatty degeneration of heart, disease of the brain, delirium tremens, arachnitis, symptoms of meningitis, acute pulmonary disease; in two each, pyæmia, tetanus; and in nine cases no "probable cause of death" is assigned in the table, but in the body of the report (p. 10) we find three of them are excluded from consideration under the rule, that the death "must occur while the patient is actually in an anæsthetic state,"—the time of death varying from three to fifteen days in these three cases; two others (of these nine) viz: Nos. 19 and 23, are cited above; of another, "the details are very meagre, but that the death [occurring four hours after inhalation] had any connection with the anæsthetic is, at least, very improbable;" and we suppose the same plea may be set up for the remaining three cases.

On page 12, of their report, the Committee aver, that "their careful search of journals and monographs, furnishes not a single conclusive case of death from the proper inhalation of pure sulphuric ether." In view of the above summary of cases reported, and yet with all deference to the Committee, we submit that with such latitude as is taken in their analysis, the most careful search of journals and monographs would furnish not a single conclusive case of death from the proper inhalation of pure *chloroform*. Of the attack on this latter agent, we have nothing to say, except, that the mode of argument, of which the following is a specimen, hardly convinces us, more fully, that the epithets "*fléau chloroformique*," "suspended sword," etc., are deserved, than the report itself does that ether, no matter how cautiously administered, is entirely innocuous:—

"But whether this is true or not, that 30,000 soldiers should escape the dangers of chloroform, is no argument in its favor. It is well known that a vast number of missiles are thrown in battle without harming a single person, yet no one would pretend that this fact diminishes in the slightest degree, the danger in the flight of a solitary bullet. The position of chloroform is precisely identical."

"Identical" with this difference, that if the vast number of missiles thrown in battle were directly applied to the soldiers, in such a way as to produce their legitimate effects, (in other words, *hit them*), as the chloroform was to the 30,000, and the soldiers yet received no injury from them, the degree of danger in the flight of each bullet would scarce warrant Gen. McClellan in relying upon them to subdue the rebellion.

One more word, and we have done fault-finding: Of the forty-one deaths reported, eighteen are stated to have occurred at intervals, varying from forty hours to sixteen days after the inhalation; seven, in from fifteen or twenty minutes to fifteen hours; four, during the operation; four, during the inhalation; and in the remaining cases, the intervals are not given. On page 10, we find the two following conditions laid down as essential to the maintainance of a charge of fatal result, attributable to the anæsthetic:

"1st. That the event should occur while the patient is actually in an anæsthetic state."

2d. That the circumstances of its occurrence should be inexplicable by any phenomena of the disease or operation."

Under the first rule, only eight cases out of the forty-one merit attention. Yet the Committee have abrogated the rule in twenty-one additional cases, where some other of the list of causes of death, aside from the anæsthetic, could be given; have availed themselves of it in four cases, where none of those causes is assigned; and in eight cases, where the date of death is not given, but is assumed to be "immediate or nearly so," they have assigned causes in five cases, and of the remaining three, remark that "the connection between the result and the inhalation is either problematical, or else manifestly absurd and unfounded," (p. 11.) On the whole, a mode of investigation not eminently satisfactory to the mathematical mind.

The incidental practical hints in the report are invaluable, and we quote as much of them as we have space for. Absolute purity of the ether for inhalation is insisted upon; and the brands of Powers & Weightman, of Philadelphia, and Dr. Squibb, of Brooklyn, N. Y., are commended as uniformly of excellent quality. A new stiff towel, of pretty good size, folded to about ten inches by five, and the ends lapped over, and secured by pins, so as to form a cone, is suggested as the best medium for its administration.

* * * The thick layers of towelling will hold sufficient ether, and its texture prevent a too free dilution of the anæsthetic by the atmospheric air, provided the apex and seam of the cone are carefully and tightly closed, either by pins or the fingers. As the cone becomes collapsed by saturation, it should from time to time be opened, and kept in shape by distending it with the hand. Unless these details are attended to, and especially the closure of the apex of the cone, the induction of anæsthesia will be uncertain and protracted. In anything so porous as a towel or sponge, the difficulty is to exclude enough air; for while its adequate admission to the lungs during etherization is essential to the life of the patient, its too free entrance not only delays anæsthesia, but induces a condition of excitement, both mental and physical. The importance of excluding the air, as above stated, is

a point not generally appreciated, but the necessity of it has long been known to those most accustomed to the use of ether, as shown by the "chemise" with which, in hospital practice, a too porous sponge is often covered to expedite the etherization of a rebellious patient.

Ether should be poured lavishly on the towel or sponge, an ounce or two at a time, especially at the commencement of inhalation. Although it may be wasted, too much, so far as safety is concerned, cannot be used. A small quantity poured on hesitatingly and timidly, as is sometimes done, has the same effect as a too free dilution of the vapor with air, producing simply intoxication and its accompanying excitement, without anæsthesia; whereas, a large amount, though the cough and choking sensation, which the greater volume of vapor produces, may cause the patient to resist and struggle, is certain to bring about a satisfactory condition of insensibility.

* * * When there is muscular rigidity with lividity, the suspension of etherization will transform this into the relaxation of anæsthesia. * * * The pulse should be watched by a competent person from the outset, and its failure, either in strength or frequency, lead to a more cautious use of the ether. * * * The respiratory movements should not be forgotten or neglected, but any slowness or irregularity in their performance should at once receive attention. * * * In the pulse of the healthy subject suddenly reduced by accident, the vitality is unimpaired, and the pulse even when hardly perceptible, rises with anæsthesia. Ether, therefore, is not to be withheld from the patient to be operated on, even in a state of collapse after a severe accident, but great caution is demanded in its use with patients who are near death from chronic and exhausting disease, and who require operations.*

* * * The best test of complete etherization is the snoring of the patient; and no operation, unless slight, should be undertaken, until this symptom presents itself. * * * There is, * * * a condition prone to manifest itself with children, especially those who are weak, strumous or overgrown, which is due to the cumulative properties of ether. It may show itself after almost any degree of etherization, and is characterized by a feeble pulse and slow respiration, not passing off with the readiness usually marking the phenomena of etherization. With young persons, a cautious inhalation of five minutes will often induce an anæsthesia of half an hour, an effect wholly out of proportion to that which the same amount

*Unpublished Records of the Boston Society for Med. Improvement.

of ether would produce in an adult. This state is not a dangerous one, and only requires time to dissipate its symptoms. Compression of the chest will expel the fumes of ether being eliminated from the pulmonary surface, and admit the entrance of a fresh supply of oxygen to stimulate the circulation. The inhalation should therefore be suspended at short intervals with children, and but little ether given at a time. Undoubtedly, it should also be used cautiously with persons past the middle period of life, of such a general obesity or constitutional condition as may lead to the supposition of a fatty degeneration of the heart. In none of the alleged deaths from ether, however, is there any mention of valvular disease of the heart being found. Of this, then, and of any bad effect upon pulmonary affections, there need be no fear, for we see it constantly administered without detriment to persons more or less advanced in phthisis, for the common operation of fistula in ano.

All that is as yet positively known of the physiology of anæsthesia is given as follows, from the recent, elaborate treatise of Lallemand, Perrin and Duroy :

1st. Anæsthetics are neither transformed or destroyed in the system, but are rapidly eliminated from it, chiefly by the lungs, and to a limited extent by the cutaneous surface. Chloroform and amylene being insoluble in water, no traces of them are ever found in the urine. Sulphuric ether being more soluble, a small quantity of this may be detected by reagents in the renal secretion.

2d. The blood and the organs of animals, dead from *ætherism* (the name given to this special intoxication by the above-named authors), contain the anæsthetic agent employed, the presence of which is easily determined by special chemical research; and the following figures show in what proportion the principal viscera contain the anæsthetic, in reference, for each of the agents employed, to the quantity found in the blood :

SOURCE OF ANALYSIS.	CHLOROFORM.	SULPH. ETHER.	AMYLENE.
Blood,.....	1.00	1.00	1.00
Cerebral substance,....	3.92	3.25	2.06
Liver,	2.08	2.25	1.00
Muscular tissues,.....	0.16	0.25	Traces.

From this, it appears that anæsthetics accumulate in the cerebro-spinal system.

3d. It is not easy to explain the deaths from chloroform and amylene, or from ether (as sometimes seen in the lower animals), but it would seem probable, both from the phenomena which they present, and the experiments which have been made, that they are the consequence of an abolition of the functions of the nervous system, and not of asphyxia.

The general conclusions which have been arrived at by the Committee, are summed up as follows :

1st. The ultimate effects of all anæsthetics show that they are depressing agents. This is indicated both by their symptoms and by the results of experiments. No anæsthetic should therefore be used carelessly, nor can it be administered without risk, by an incompetent person.

2d. It is now widely conceded, both in this country and in Europe, that sulphuric ether is safer than any other anæsthetic, and this conviction is gradually gaining ground.

3d. Proper precaution being taken, sulphuric ether will produce entire insensibility in all cases, and no anæsthetic requires so few precautions in its use.

4th. There is no recorded case of death, known to the Committee, attributed to sulphuric ether, which cannot be explained on some other ground equally plausible, or in which, if it were possible to repeat the experiment, insensibility could not have been produced, and death avoided. This cannot be said of chloroform.

5th. In view of all these facts, the use of ether in armies, to the extent which its bulk will permit, ought to be obligatory, at least, in a moral point of view.

6th. The advantages of chloroform are exclusively those of convenience. Its dangers are not averted by its admixture with sulphuric ether in any proportions. The combination of these two agents cannot be too strongly denounced as a treacherous and dangerous compound. Chloric ether, being a solution of chloroform in alcohol, merits the same condemnation.

Dr. C. T. Jackson, one of the Committee, objects and excepts to the clause in this report in which "all mixtures of ether and chloroform" are denounced; viz: to the words, "the dangers of chloroform are not averted by admixture with sulphuric ether," and to the terms, "treacherous and dangerous compound" of ether and chloroform. He believes that a mixture of four measures of ether and one measure of chloroform may be employed without danger, or with very little danger, and that

the risks from chloroform are diminished more than four-fifths by this combination. He believes it to be necessary to have an anæsthetic agent of less bulk than ether, and not so dangerous as chloroform, for army uses, and is satisfied that this mixture, which he has employed and prescribed, completely answers the purpose required.

THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES ; including the Results of Recent Investigations on the Subject. By FREEMAN J. BUMSTEAD, M. D., Lecturer on Venereal Diseases, at the College of Physicians and Surgeons, New York ; Surgeon to St. Luke's Hospital ; Assistant-Surgeon to the New York Eye Infirmary. 8vo., pp. 685. Philadelphia : Blanchard & Lea. 1861. Chicago : W. B. Keen.

The views of the profession in regard to the pathology of syphilis, have undergone important changes during the last five years. Fanciful theories, which distorted the observations of earlier writers, have given way to the sober impressions of facts. Men doubt, where they once blindly credited, and inquire into what they formerly took for granted. One is particularly struck with the recent radical changes which have taken place in the views of the profession, concerning the varieties of chancre, inoculation, transmission of secondary symptoms, period of incubation, etc., after perusing our author.

Dr. BUMSTEAD has shown himself more than a compiler in this volume ; for whilst he has given us a complete summary of the labor of others in this specialty, he has proved himself to possess a sound judgment in the selection of material, and a very extensive knowledge of his subject. He is favorably known to the profession by a series of lectures upon gonorrhœa and syphilis, delivered before the class of the College of Physicians and Surgeons, and published in the *N. Y. Jour. of Med.*, 1859.

The volume is divided into the subject of gonorrhœa and its complications—including the anatomy, pathology and treatment of stricture—and the chancroid—its complications and syphilis. The introduction is devoted, chiefly, to a discussion of the origin of venereal diseases, and the distinct natures of gonorrhœa and syphilis. It comprises a condensed and in-

interesting epitome of all the medical literature pertaining to the origin of venereal diseases, and need not detain us, except to remark that the author does not regard the testimony in favor of the supposed American origin of syphilis as at all conclusive; and that gonorrhœa and syphilis are due to different poisons; although inoculations,—relied upon as conclusive evidence of this fact, by Ricord—have been proved fallacious, yet other facts and observations sufficiently sustain the theory.* No allusion is made to the well-known experiments of Hunter.

Amongst the causes of gonorrhœa, the author admits its origin in coitus with women suffering from leucorrhœa as an accident of frequent occurrence; and as often due to accidental causes, and not to direct contagion. As proof of the contagious character of a leucorrhœal discharge, he cites as an example the ophthalmia of new born-children, its origin, and virulence. Ricord, Diday, Fournier, Skey and others, are quoted as authorities, all of whom maintain that *gonor-*

*To Mr. Ricord is due the credit of having introduced a new method of investigating the nature of the venereal diseases; namely, that of inoculating the products of the different affections which arise, with the point of a lancet on some apparently healthy part of the skin of the affected person. By this method of investigation, M. Ricord arrives at the following, among other conclusions: * * * * "That blenorhagia (or gonorrhœa) and chancre, are two affections, entirely distinct."

The concurrent testimony of all observers has now ceded to Ricord his first point, namely, that the pus derived from a chancre, contains a very powerful agent which escapes detection by our senses, and which is not found in the pus of blenorhagin; when this subtle and occult agent is inoculated, the morbid process which ensues, may be traced in the most satisfactory manner. If the pus from a suppurating chancre, during its period of progress, or during the time that it remains stationary, be inoculated, the following succession of events may (according to M. Ricord,) be observed. * * * * "From the fifth day, the subjacent tissue, which had before undergone no change, beyond being slightly œdematous, becomes infiltrated by a plastic lymph, which affords to the touch the peculiar hard and elastic feeling of certain forms of cartilage. * * * (It does not appear how M. Ricord became acquainted with this fact. According to his own published opinion, the process of induration could only take place in those who had not previously had constitutional syphilis; and these, M. Ricord has always, with great propriety, refused to inoculate.)—*Henry Lee.*

Our author truly remarks, also, that "the true chancre is precisely upon the same footing as gonorrhœa; neither the one or the other is auto-inoculable; and hence this test at one time, much insisted upon by Ricord, though not original with him, is proved fallacious." Vidal is one of the latest writers on the opposite side, and maintains that certain persons are naturally incapable of being inoculated with the syphilitic virus; and that in others this immunity may be acquired under certain circumstances. Our author states that "Diday has adduced the testimony of three of the Internes of the Hôpital du Midi in proof of the fact that Vidal invariably treated blenorhgia as a simple inflammation, without mercury."

rhœa may arise from intercourse with women, who, themselves, have not the disease. The importance of this truth, in a medico-legal point of view, is apparent. The writer has had under treatment, within a fortnight, as severe a case of gonorrhœa as is often seen, accompanied with severe chordee, in a patient whose word could be implicitly relied upon, and who had intercourse with no other female than his wife. She was examined, and no evidence of a venereal disease was present, but she had had the "whites" at the time the husband contracted his gonorrhœa.

Space will not permit any quotations from the chapter upon *stricture* and its treatment, which seems to be all that can be desired in a work of this kind; and we pass on to the one on *syphilis*. He divides the primary ulcer into two varieties: the non-indurated, infecting chancre, or *chancreoid*,—a term which is adopted in this work—and the indurated, true chancre. The one is never followed by constitutional taint, and frequently is followed by suppurating bubo; the other is the only *primary* sore which can give rise to secondary symptoms, and is rarely followed by other than indolent buboes. He believes that the virus of these ulcers are *distinct* poisons, which are incapable of confusion, or in other words, that the type of these ulcers remains unchanged in passing from one person to another—and after an able discussion of the views of MM. Bassereau, Clère, Diday, Ricord and others, upon the subject of the unity or duality of the poison, he gives the following corollaries:

"1. Among persons free from previous syphilitic taint, each of the two species of chancre is transmitted in its kind, the simple chancre as a simple chancre, limited in its action to the neighborhood of its site; the infecting chancre as an infecting chancre, followed by constitutional manifestations."

"2. A primary sore, with a soft base, and unaccompanied by induration of the neighboring lymphatic ganglia, in a subject already infected with syphilis, will, when communicated to a person free from syphilitic taint, give rise to a soft or hard chancre, according to the nature of the virus, which occasioned the first mentioned ulcer."

“3. The virus of the non-infecting chancre, is a poison distinct from that of the infecting chancre.”

“4. Phagedenic ulceration of a chancre does not depend upon a specific difference in the virus.”

Whilst allowing two kinds of *chancreous* virus, it does not follow that there are two kinds of syphilitic virus. The term syphilis, being limited in its meaning to a general disease, as well as local, only embraces the indurated chancre, whilst the soft or *chancreoid*, is to be studied apart, as a non-infecting chancre; and as distinct a disease as gonorrhœa. Upon the subject of incubation, our author differs from Ricord; whilst, with him, he agrees that the induration of the chancre is the effect of a general infection of the system, he differs so far as to believe that the infecting chancre, from the earliest period of its existence, is not a local, but a constitutional lesion. If this is true, the importance of a correct diagnosis in all cases cannot be over-estimated, nor can any surgeon justify himself in remaining satisfied that he has saved his patient from constitutional disease, by treating the primary lesion with escharotics, to convert it into an innocuous ulcer, before the chancre is truly formed. On the other hand, the patient is to be saved from a course of mercury, when subject to a simple chancre only. The author does not believe in the abortive treatment of infecting chancre.

The chapters on the diagnosis and general treatment of chancre and syphilis, are particularly instructive and suggestive; the author is firm in his faith of the value and necessity of a mercurial treatment, early commenced and well-continued in secondary syphilis.

The chapters on syphilization, tertiary syphilis, affections of the skin, mucous surfaces, etc., are as practical as can be desired, and embrace all that can be wanted by the student or practitioner in a text-book or work of reference.

The book is a credit to the author, and a valuable addition to American medical literature.

SCURVY, according to Dr. RAWSON, Surgeon to 5th Iowa Regiment,—has already begun to appear among the Missouri

troops, in the form of swollen legs, purpura hæmorrhagica, debility, etc.,—the result of a two months' diet of salt meat or bacon, hard bread or flour, very few potatoes and no other vegetables. Some measures should be at once taken to furnish a supply of anti-scorbutics, if it is impossible to procure better rations.

Editorial.

MEDICAL DEPARTMENT OF LIND UNIVERSITY.—The regular annual college term in this institution, commenced on Monday, the 4th of October. The introductory lecture was delivered by Prof. E. ANDREWS, to a full and appreciative audience. Of the lecture itself, we will not speak, as the reader will find it in full in the present number of the EXAMINER. The term is now fairly in progress, and the courses of instructions, in all departments, going on with the regularity of clock-work. The regular matriculants already number about *sixty*, which shows a most gratifying increase over the number in attendance last year, and clearly indicates the steadily increasing confidence of the profession in the stability of the institution, as well as in the correctness of its plan of instruction. But what is of much more importance, in our estimation, than mere members, is the fact that every member of the present class, has received a good preliminary, and general education, and has entered upon the study of medicine, with habits of industry and mental discipline, coupled with a determination to study. To such a class, it is a pleasure to lecture. When we remember that the present is only the third annual course of lectures since this department of the University was founded; that the present class is double the number of the first; that the institution already possesses a museum of near 7,000 specimens and preparations chiefly anatomical and pathological, a new and ample chemical apparatus and laboratory, and a library of 700 volumes, without one dollar of indebtedness; and that the plans are in active progress for having in readiness a new and permanent college building, at the opening of the next annual session, we see abundant reason for congratulating the

Faculty, and the friends of the school, on its present condition, and fair prospects for the future.

LOCAL MEDICAL SOCIETIES.—As we intimated in the October number of the EXAMINER, the local medical societies in this city have taken a new start, and their meetings are held punctually and well attended. The Chicago Academy of Medicine, holds its regular meetings on the first Friday evening of each month,—and the Chicago Medical Society holds its meetings every Friday evening, except the first one, in each month. We are glad to see, not only the increased attendance, but the greatly increased attention to the subjects chosen for discussion, and the preparation of papers on the part of the members, generally. The profession in this city, contains material for as profitable and interesting social and scientific unions, as exist in any other city.

COMMUNICATIONS are at hand, and will receive due attention,—from ASHBEL WOODWARD, M. D., President of the Conn. Med. Society, on *Chloroform in Catalepsy*; from Dr. E. L. HOLMES, Surgeon to the Chicago Eye and Ear Infirmary, on *Extirpation of the Eye*; from S. W. WALLACE, M. D., of Carthage, Wis., *a Case of Protracted Chloroformic Anæsthesia*; from M. O. HEYDOCK, M. D., of Chicago, on *The Therapeutic Uses of Muriate of Ammonia*; from a New York correspondent, on the opening of the New York Ophthalmic School; and from other correspondents and contributors, all of which we gratefully acknowledge.

CLOSE OF THE VOLUME.—The December number will end the second volume of the EXAMINER. Of the prospects and intentions for the future, however, we do not now propose to speak; but merely allude to the fact, in order to call the attention of our subscribers to the renewal of their subscriptions. The coming number will contain the first of a series of papers on *Ovarian Tumors*, from the pen of WM. H. BYFORD, M. D., Professor of Obstetrics and Diseases of Women and Children; also, the Index to the volume, and a number of favors from correspondents and contributors, unfortunately crowded out.

RUSH MEDICAL COLLEGE.—The commencement of the regular college term in this institution, took place on Wednesday, the 16th day of October. The general introductory was given by Prof. DELASKIE MILLER. Not being present, we cannot speak definitely, either of the lecture or of the audience, but we presume both were creditable to the institution. The number of students indicates a fair degree of prosperity.

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THE CHICAGO MEDICAL EXAMINER

N. S. DAVIS, M. D., Editor.—FRANK W. REILLY, M. D., Ass't Editor.

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DECEMBER, 1861.

[NO. 12.

Original Contributions.

ARTICLE I.

OVARIAN TUMORS.

By WM. H. BYFORD, A. M., M. D.,

PROFESSOR OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN, IN THE MEDICAL DEPARTMENT,
LIND UNIVERSITY, CHICAGO, ILLINOIS.

I.—Is OVAROTOMY A JUSTIFIABLE OPERATION?

This question is one which may be considered open for discussion, many eminent members of the profession, both in this country and in Europe, entirely rejecting it, while quite as many, perhaps, of equally good authority, advocate its adoption among the legitimate modes of relief in appropriate cases. The statistics of operations performed in the last few years, particularly by men who have endeavored to perfect it, and to make a just adaptation of it to cases, furnish its advocates with, I think, valuable proof of its beneficent effects.

Ovariotomy is comparatively a new operation; and, as yet, is not in that state of perfection that almost all other capital operations have attained; so that, in forming an opinion of its rate of mortality, as compared with other operations, we should make due allowance for short-comings in this respect. This remark, of course, is more strongly applicable to operations performed five, ten, fifteen, and even thirty years ago. The causes of failure then, were not so well understood as now, (nor now, as they will doubtless be in the future), nor were they avoided with the skill we may hope some time to

employ. There are but few of the other capital operations which have not arrived at perfection, so far as their mechanical execution is concerned, and perhaps the prior and after treatment of the case for which they are performed. They consequently have the great advantage, thus arising, in any comparison of value or safety. The statistics of ovariectomy include cases treated by all sorts of surgeons, under all sorts of circumstances, during the whole time from its initiation in 1809, by Dr. McDowell, of Kentucky, up to the present time; thus presenting many cases surrounded by the most unfavorable circumstances, and performed in the very worst possible manner. The statistics of other operations, of less danger and importance, are made up on the contrary, from the practice of men of good surgical reputation, surrounded by as favorable circumstances as experience of long standing, and innumerable repetitions can suggest. With regard to the statistics of ovariectomy, they differ very much, comparing those of the last ten years with the records of the twenty years preceding; and there is reason to hope, that twenty years hence, the progressive improvement of this operation, will furnish a still more favorable exhibit, as compared with the present.

Notwithstanding all this unfavorable state of things, ovariectomy will compare favorably with amputations, operations for hernia, ligations of large arteries, etc. I shall give the results of other operations before inquiring into those of ovariectomy: M. Malgaigne has shown that, out of 825 amputations of the extremities, of all kinds, including the fingers and toes, performed in the Parisian hospitals from the year 1836 to the year 1844—332 died; or about *four* in every *ten* proved fatal.

Of 201 amputations of the thigh, 126 died, or *six* in *ten*.

Of 192 " " leg, 106 died, or *five and a half* in *ten*.

Of 91 " " arm, 41 died, or *four and a half* in *ten*.

In Glasgow, Dr. Lawrie has shown that of 276 amputations, 101 proved fatal, or nearly *four* in every *ten*.

In 128 amputations of the thigh, 46 died, or *three and a half* in *ten*.

In 62 " " leg, 30 died, or about *five* in *ten*.

In 53 " " arm, 21 died, or *four and a half* in *ten*.

In the Edinburgh Infirmary during 1839, there were seventy-two amputations of the thigh, leg, shoulder-joint, arm and forearm; of these, thirty-five proved fatal,—nearly *five in every ten*.*

Amputations at the knee-joint, show a mortality of thirty-seven per cent., as shown in a collection of cases by Dr. Thomas M. Markoe, in the *New York Journal of Medicine and Surgery*, for January, 1856, quoted by Dr. Gross, in his new work on Surgery, at p. 1119, second vol. In amputations of the thigh, performed by American and European surgeons, in 1055 cases, there were 464 deaths, or forty-three and a half per cent.; seventy-six cases in 126 amputations at the hip-joint, died, equal to about sixty per cent. In forty-seven cases performed for injury, thirty-five died, over *seventy per cent*.

Mr. Phillips has collected 171 cases in which the large arteries were tied; of these fifty-seven died, or about *three and a half deaths to ten cases*. Dr. Inman finds that, in 171 cases of ligature of the large arteries, sixty-six died, about *three and a half to ten*. Eighteen cases of ligature of the subclavian in forty died, nearly *five to ten*.

In his work on hernia, Sir Astley Cooper records thirty-six deaths in seventy-seven operations; or nearly *five in ten cases*. Dr. Inman has collected 545 cases of operations for hernia, of which 260 proved fatal, nearly *five in ten*.

Turning to operations in ovarian diseases. According to Mr. Southam, who has tabulated twenty cases of simple tapping, four died from the effects of the first operation; *one in five*. Three more died within one month of the first tapping, and fourteen, in all, died in less than nine months, and four lived during periods, varying from four to nine years.†

Dr Tyler Smith, in a paper read before the Obstetrical Society of London, says, that in 130 cases of simple tapping, as many as sixty-nine died within one year, and 114 were known to have eventually died of the disease. Of 130 cases, treated with iodine injections, sixty-six died or refilled, and

*SIMPSON 1st Series, page 245, *Obstetrical Works*.

†SIMPSON *Obs't Works*, page 24, 1st Series.

sixty-four are said to have been cured. The ovary still remaining, the nîsus of the disease is left behind.*

Dr. Smith reports twelve cases in which *he* tried iodine injections after tapping; two were successful; one of these he lost sight of in a short time, and consequently, could not say how long she remained well.—*Idem*.

I cannot lay my hand upon the tables at present, but Dr. Robert Lee, a strenuous opposer of the operation of ovariectomy, has collected 200 cases. His table shows a mortality of one in every $2\frac{1}{2}$, or less than five in ten. Many of these were operations performed many years ago. The imperfections of diagnosis, and want of knowledge of the best modes, and appropriate sort of cases, should be considered in connection with these results.

Dr. Cornak, who is also adverse to the operation, found that in eighty-nine cases, in which ovariectomy had been performed or attempted, thirty-four died, or nearly four in ten. In sixty-five cases in which the operation had been perfected, twenty-five, or between three and four in every ten died.†

Dr. George H. Lyman reports the results in 299 cases, collected by him, in a prize essay read before the Massachusetts Medical Society, quoted by Dr. Gross, in his new work on Surgery; of these, 179 recovered, and 120 died, a mortality of four in ten, or a little over.

Dr. W. Tyler Smith reports 183 deaths in 212 cases, promiscuously collected, and four successful in his own practice. In the *British Medical Journal*, for December, 1860, a table is given of twenty-two cases, said to embrace all the operations performed in the London Hospital, for the last three years; of these thirteen died and nine recovered. The following is a copy of the table.‡

**Lancet* for May, 1861—*Am. Reprint*.

†SIMPSON, *Obst. Works*, 1st Series. Page 246.

‡From *American Journal* for April, 1861.

NO.	HOSPITAL.	OPERATOR.	DATE OF OPERATION.	RESULT.
1	Samaritan,	Mr. S Wells,	February, 1858.	Recovered.
2	Metropolitan Free,	Mr. Hutchinson,	August, 1858.	Recovered.
3	" "	Mr. Hutchinson,	August, 1858.	Died.
4	" "	Mr. Hutchinson,	September, 1858.	Died.
5	Samaritan,	Mr. S. Wells,	September, 1858.	Recovered.
6	Metropolitan Free,	Mr. B. Childs,	November, 1858.	Died.
7	Samaritan,	Mr. S. Wells,	November, 1858.	Recovered.
8	University Coll.,	Mr. Erichsen,	November, 1858.	Died.
9	Samaritan,	Mr. S. Wells,	January, 1859.	Died.
10	Guy's,	Mr. C. Forster,	February, 1859.	Died.
11	Metropolitan Free,	Mr. B. Childs,	February, 1859.	Died.
12	Samaritan,	Mr. S. Wells,	May, 1859.	Recovered.
13	" "	Mr. S. Wells,	June, 1859.	Died.
14	" "	Mr. S. Wells,	June, 1859.	Recovered.
15	" "	Mr. S. Wells,	July, 1859.	Recovered.
16	" "	Mr. S. Wells,	October, 1859.	Recovered.
17	Westminster,	Mr. Holt,	October, 1859.	Died.
18	Samaritan,	Mr. S. Wells,	December, 1859.	Died.
19	" "	Mr. S. Wells,	January, 1860.	Recovered.
20	London,	Mr. Curling,	February, 1860.	Died.
21	Samaritan,	Mr. S. Wells,	February, 1860.	Died.
22	Middlesex,	Mr. Nunn,	October, 1860.	Died.

Mr. Spencer Wells, who has diligently and profitably studied the subject of ovarian disease had, it will be seen, twelve of these cases under his care. The recoveries in his cases, were eight in the twelve, or a mortality of three and a half to ten. Mr. Hutchinson had the only other favorable case. This is remarkable,—as Messrs. Erichsen, Curling, Nunn, and Forster, were among the surgeons in attendance upon the others; and it will hardly be regarded as improper, to express the opinion, that Dr. Wells' success was not accidental. While the mortality in his cases is so low, comparatively, in the other operations, it amounts up to nine deaths in ten cases,—certainly no approximation, to the average as arrived at, even by enemies of the operation.

Dr. R. Lee estimates the mortality at forty to forty-five per cent., Dr. Safford Lee, at thirty-three per cent., Dr. Spencer Wells, the same, as also Drs. Churchill, Druitt, Brown, Simpson, Clary and others

From the foregoing statistical comparison, (much of which presents the case as unfavorably for ovariectomy, as can be justified by the worst summary of the cases on record,) I think it may be inferred, that the fatality attending amputations at the hip-joint, thigh, and shoulder-joint, operations for hernia, ligature of the subclavian, and some of the other large arteries, is greater than occurs in ovariectomy. Yet, what

surgeon would think of refusing his patients, under all circumstances, the chances promised by these operations?

Comparisons of dangerous operations, however, should not decide us for, or against, the propriety of admitting one or the other, into the list of credit and legitimacy; so that if ovariectomy were proven to be the most dangerous of operations, the question of admissibility would not, thereby, be settled against it. The question properly at issue is: *Is ovariectomy, under any given set of circumstances, the best remedy for ovarian growths?*

If certain conditions present themselves, in which no other remedy can be used with hope of success, and the course of the case is to a speedily fatal termination, the life of the patient is worth very little to herself, friends, or the public. If the patient is young, say less than twenty-five, is the certainty of living a life of misery, one year or less, better than one chance in three, or even one in two, of being entirely relieved of her disease, and placed upon a healthy footing, with a reasonable prospect of a long and useful life? Nobody would recommend ovariectomy for a disease that, according to our best judgment, would not approach a fatal termination under ten or more years, or has not already destroyed the hope of the sufferer of ever again enjoying health. But with ovariectomy, as with every other terrible remedy, it should not be suggested, until the surgeon has become convinced that it is *the only remedy*. Then the responsibility of refusing that remedy is greater than the risks connected with a timely, judicious and skillful operation.

That ovarian cystic dropsy is not always fatal, two per cent. of exceptions will not prove. That its course is rather rapid and continuously progressive, is almost as equally true. The operation, when successful—not fatal, in its effects, is a complete remedy, removing the *nisus* of the evil. It is not attended with any danger to the patient, the health being as good as ever; all her functions are complete, unless when both ovaries are removed.

This is more than can be said of many important and dangerous operations. Amputations always mutilate and cripple

their subjects, lessening the value of the lives they save ; not so with ovariectomy. Many of the objections used against this operation, are equally applicable to every other, without exception, of the capital operations. That there are instances of mistakes in diagnosis is true. How many limbs, and lives together, have been sacrificed unnecessarily, on account of wrong diagnosis ? Did no man of superior abilities and experience ever operate for aneurism or hernia, when neither of these existed ? Because errors of diagnosis might more readily occur at one time, years ago, when our means of distinguishing between diseases of the abdomen and pelvis were very much inferior to what they are at present, should we be deterred from acting upon our convictions now, particularly in cases otherwise hopeless ? Because we have means of less hazardous nature, that will enable us to give the patient some chance of relief in certain forms of ovarian disease, such as injections of iodine, tapping, and pressure, are we to abandon the rest of the cases, such as these remedies avowedly cannot reach, to their fate ? I take it for granted, that no man would hope to cure a polycystic ovarian tumor by any other means than extirpation.

Inability to complete an operation, after being begun, on account of adhesions, the unexpected nature or complication of the tumor, is urged as an objection. When we recur to the facts, that we are justified in performing ovariectomy only in cases where it affords us the best chances of cure ; and that without cure, our patient must die in a short time ; and that proper tentative procedure, will enable us to decide the propriety or possibility of completing our operation, without adding very largely to the *immediate* risks of our patient, the objection will not be a very important one.

That all capital operations are too frequently and unnecessarily resorted to, that they are sometimes productive of avoidable mischief, no doubt are facts ; but it is equally true that thousands of lives are annually saved by their performance, throughout the civilized world. The abuse of them should not be brought as an objection to their employment ; nor should their want of success, from the un-

skillful practice of the ignorant, who may choose to undertake their performance, or from the evident imperfections of the various steps composing them, and the antecedent and after-treatment of the cases, discourage us. While there is life to be saved, as conservators of that greatest of human blessings, we should, at least, offer our patient even these extreme remedies.

Ovariectomy may be urged as one of the remedies capable of accomplishing, what, under certain circumstances, no other human agency can effect. No doubt, therefore, ought to be entertained of the propriety of recommending it, under such circumstances. Many of the most daring and deserving of our living surgical teachers take the opposite ground; but that ovariectomy is far more generally countenanced now than heretofore, is apparent to the intelligent observer; and at the end of the present century, there will be no more doubt of the propriety of the operation, than there now is of the admissibility of amputations of the thigh and shoulder. There is one circumstance, in connection with the propriety of substituting or temporarily using, other remedies for ovariectomy, in cases where this operation is proper, that has been, I think, too carelessly considered; and that is, that almost every other remedy we can make use of, with a view of producing any good palliative effect upon the tumor, renders the operation more hazardous, and sometimes impracticable. This is particularly true of tapping, either with or without injections of iodine, and pressure. These, and more particularly the last two, almost invariably produce peritoneal inflammation, effusion of fibrin, and consequent adhesions,—one of the most vexatious and dangerous complications with which we meet.

Hence, I think much of the fatality of ovarian diseases would be avoided, by a determination, before any interference whatever, of the propriety or impropriety of ovariectomy. Let each case, when first met with, be carefully considered with reference to the remedy applicable to it, and *make use of that remedy alone*. Doubtless, many cases would be presented, to which the palliative treatment is the only one applicable, as in incurable cases; in such cases it should be used *from*

beginning to end. I do not believe it should ever precede radical remedies.

We are too apt to think our responsibility begins with the spilling of blood in a doubtful operation; but much more attaches to a judicious decision, as to proper means, and an abstinence from mischievous but, apparently, unimportant meddling.

ARTICLE II.

THE THERAPEUTICAL USES OF THE MURIATE OF AMMONIA.

By M. O. HEYDOCK, M. D.

A Paper read before the CHICAGO MEDICAL SOCIETY.

I have thought that a paper, which should embody all the written experience which a hasty examination of my library and the journals within my reach furnishes, in reference to the valuable qualities possessed by a drug, little used in this country and England—might not prove uninteresting.

I will, therefore, give you a synopsis of the written experience of a few of our brethren, in the *Use of the Muriate, or Hydrochlorate of Ammonia*, my own coinciding with theirs, as far as I have had an opportunity of observing.

It is a matter of surprise with those who have used this drug, why it is so neglected by the profession, while a hundred articles of the *Materia Medica*, whose value and power are matters of doubt and scepticism with many of the faculty, especially those articles, which, for want of a more exact nomenclature, we give a place under the unsatisfactory appellation of Alteratives and Deobstruents—enter into our prescriptions, conjoined with medicines, whose active properties are satisfactorily proven.

Sarsaparilla has had its ups and downs; but I think it is conclusively settled by an impartial and rigid series of tests, to which it has been subjected, that it is a medicine of little alue, but an expensive vehicle for some whose merits cannot

be called in question. And yet this article has a position in the popular estimation as a cure-all, second to none, and judging from prescriptions, some of the fraternity will take issue with me upon its merits. Yet, I can but think it a negative, rather than a positive medicine. Contrasted with the popularity of this expensive drug, the muriate of ammonia, so valuable, and at the same time, so cheap, has failed to win our confidence, only because we have never given it an opportunity, certainly, to the extent its virtues merit. In Germany, its position is much like that held by nitrate of potash with us. I am told that our German brethren in this city, use it very extensively. We all admit that it has few superiors as a refrigerant, externally—a Mr. Walker, according to Pariera, finding that a mixture composed of mur. ammonia and nitrate of potash *aa.* five parts, with sixteen parts of water, lowered the thermometer from 50° to 10° F.

Let us now see how it stands in the estimation of a few, who, having used it, have called the attention of the profession to it:

One writer considers it "the most valuable of all the preparations of ammonia."

Pariera says it is liquefacient, resolvent and alterative; promoting the mucous and cutaneous secretions, and under certain circumstances, that of menstruation; counteracting organic abnormal conditions, as tumors, and thickening of mucous and serous membranes. Its diuretic effects are less obvious. It acts in many respects like the preparations of mercury, and yet a prolonged use of it does not give rise to the cachexia which results from the latter. In large doses, it is said to purge, in small ones it constipates. Its effects are much like iodine, bromine, and chlorine.

Dr. Lindsay, in the *Glasgow Medical Journal*, of 1855, gives an interesting paper, containing the results of his own experience with this drug upon himself and two friends. The condition of the system was observed as to appetite: pulse, intestinal and urinary secretions, and articles of diet consumed. One took 9 grs., another 13½, and the last 18 grs.

per day, in three divided doses. No comparisons were instituted until at the close of the week

Upon the second day of trial, great buoyancy of the system was experienced, and an inclination for increased exertion in all three, representing the different temperaments, least in the lymphatic,—but it should also be stated that he consumed less of the drug than either of the others, taking but 9 grs.; with him the appetite was much increased, the amount of food doubled, the feculent discharges much augmented, the mucous follicles of the intestines seemed to be stimulated to much increased secretion. In two, the force and frequency of the heart was diminished, but the pulse slightly increased in the case of the smallest quantity. The urine was increased in two, from six to ten ounces, in the twenty-four hours, the excess of solids varying from 70 to 160 grs. per day. In the medium dose, the bowels seemed to be affected rather than the kidneys, so that it can hardly be called a renal hydragogue.

He has used it only in chronic diseases, such as are the results of inflammatory action, of which chronic bronchitis, enlargement of lymphatic glands, either scrofulous or of a syphilitic character, chronic skin diseases, and rheumatism, are the representatives.

He thinks its action much like iodide of potassium, and says that long continued use of it does not derange the digestive organs, like the alkalies. He give the details of treatment in two or three interesting cases of chronic bronchitis, attended with thick tenacious secretion, where the benefit was very marked, and also a case of constitutional syphilis where iod. potass. having been used in vain, the ammonia was resorted to with complete success.

Dr. Rea, in the London *Lancet*, of February, 1859, gives the results of eight years experience in the use of this medicine in private and dispensary practice, both in chronic and acute affections. In ten cases of goitre, it cured all in periods ranging from two weeks to two months, used internally and externally. Cases were treated at the same time

with iodine; the treatment occupied the same length of time, and the cures were no more permanent or decided in the latter than in the former. He was led to give it a trial in whooping cough, upon the theory entertained by some pathologists, that there is a morbid condition and enlargement of the bronchial glands, or an irritating glairy mucus causative of the disease. In thirty-three cases of more than ordinary severity, ten in private, and the remainder in dispensary practice, its remedial influence was immediate and decided; the expectoration became bland, and less tenacious; paroxysms milder, and less frequent, and of shorter duration. He was better pleased with the result, than that of any remedy with which he is acquainted.

The medicine was given in doses of from one to five grs., according to age, and the duration of treatment averaged twenty days, but in the cases most favorably circumstanced, it did not extend over a period of more than nine to fifteen; where there existed pneumonia or bronchial complications, he added to the mixture, antimony or ipecac. The only inconvenience to which it gave rise in any of the cases, was a slight mucous diarrhœa, which was easily controlled.

Scrofulous lymphatic glands, such as those of the cervical region, which are so intractable, yielded rapidly to the ammonia, after iodine and its preparations had failed.

In the scaly varieties of skin diseases, as psoriasis inveterata, after failure of arsenic and iodine, rapid cures were effected. He thinks the benefit most marked in cases of psora, occurring in persons of irregular and dissipated habits, or where it is complicated with enlarged liver.

A writer in the ninth number of *Braithwaite*, gives his experience with it in pleurisy, subacute inflammations, and congestive conditions of the mucous membranes. With the Germans, as I have said, it usurps the place of nit. potass. save in those cases where the febrile symptoms run high.

Fuller, in his work on rheumatism, speaks of it as a remedy of singular value in chronic rheumatism, and wonders why it has found so little favor with the profession. He says that it not only increases secretion, mucous and cutaneous, but im

proves nutrition. With bark it produces marvellous results in cases where other remedies have failed. It is not in those cases where the periostum and joints are affected, that its virtues are most satisfactorily displayed, but in those where the disease is chiefly confined to the muscular system.

Dr. Ebdon, in the *Indian Annals of Medical Sciences*, for April, 1854, states that he has found it is a valuable remedy in all neuralgic pains, as facial neuralgia, nervous headaches, toothaches, sciatica and neuralgic dysmenorrhœa.

Some writers have spoken favorably of its use in hepatitis, where suppuration having commenced, mercury becomes inadmissible.

Fountain reports a case of uterine neuralgia, where it gave immediate relief, in ʒss. doses.

Prof. Barrillier, of Toulon, reports administering it in 259 cases of nervous cephalalgia, with success in 202, in doses of fifteen grs. in mint water, repeated every half hour; relief was felt immediately, seldom requiring the third dose. To prove effectual, he says it should not be used immediately upon the advent of the paroxysm, but when it was at its height of intensity. He says that it is not for all forms of cephalalgia, and mentions the following conditions as the result of his experience and conclusions :

1. It dissipates almost constantly idiopathic migraine or hemicrania, consecutive to *too abundant* menstruation. Other writers refer to its valuable properties in this connection.

2. It is powerless in the headaches, dependent upon irregular or suppressed menstruation.

3. It is tolerably successful in cranial pains, dependent upon derangements of the stomach, and the cephalalgia frequent in women and feeble persons, under the influence of sudden change of the atmosphere, prolonged intellectual labor on mental emotions.

4. It operates beneficially in cephalalgia, consecutive to repeated paroxysms of intermittent fever, those which are observed during the decline of severe fever, and in the course of the irritative period of typhus.

Stillé, in his late work upon the *materia medica*, speaks of it as reported to be of great value in chronic gleet, and leucorrhœa, and also as having been resorted to successfully in the treatment of several cases of quartan ague, when other medicines had failed.

Its decided and positive influence on the mucous membrane, renders it valuable in old coughs, dependent upon gastric derangement.

Dr. HAMILL, of this city, tells me he has found it invaluable in the pneumonia of drunkards.

I need not occupy your time, by giving extracts from our journals of the last twelve or twenty-four months, detailing the cases of facial neuralgia, where its use was followed by an immediate and lasting success.

Dr. Watson speaks of its reputed value in hemicrania, and this, with the reported cases to which I allude, led me to use it. In facial neuralgia in some of its forms, I know of no one article of the *materia medica* which has so invariably afforded relief as this, given in doses of from ten to fifteen grs., every half-hour. If it does not remove the pain after some half-dozen doses, it is not apt to prove of service, and some other remedy must be resorted to.

Some one has thought it most serviceable in those cases attended with redness and swelling about the seat of pain. I am not satisfied that it is so. I have used it in the thin, sallow and anæmic. Once or twice in the intermittent variety, once successfully, once it failed. In nervous headaches, I have as yet, had little experience with it, but that has been attended with results which will lead me to try it further.

Were it only of equal value with other of our drugs, in these cases, its cheapness should lead us to use it in our practice among the poor,—a few cents furnishing a requisite quantity for medical purposes, and if it is furnished by the druggist, as charity, it costs him little.

I have thought that one reason of its undeserved neglect, was in consequence of its pungency, but this is in a great measure overcome, if it is given largely diluted, as the dose

mentioned in an ounce of water. Its taste reminds me more of rock-salt, as we call it, than anything I think of. When the patient is one who does not object to an extra charge, for the sake of his palate, I have found the following formula acceptable :

R—Mur. Ammonia,	-	-	-	3ij.
Water,	-	-	-	3iv.
Syr. Tolu,	-	-	-	3ij.
Sugar,	-	-	-	3ij.
Ess. Wintergreen,	-	-	-	3ij.

Dose, 3ss., which contains ten grs.

The *modus operandi* of this medicine, is not understood. It seems gradually to unload the vessels, and convalescence takes place without any critical discharge. The tongue becomes clean, and its decided influence upon the mucous membranes cannot be questioned.

I think there can be no mistaking its medicinal value as an alterative in certain chronic affections, for all the writers cited, seem to agree strikingly as to the results flowing from their experience. In this paper, I have tried to avoid all reference of a loose and conjectural character, giving only what seems to have been the result of actual experience,—and I think that the facts herein recorded, satisfactorily prove that it is a positive and valuable medicine.

ARTICLE III.

THREE CASES OF EXTIRPATION OF THE EYE.

Reported to The CHICAGO MEDICAL SOCIETY

By E. L. HOLMES, M. D., of Chicago,

SURGEON TO THE CHICAGO CHARITABLE EYE AND EAR INFIRMARY.

If it is in order, Mr. President, I will call the attention of the Society to three pathological specimens of the eye, which I have had occasion to extirpate for three different forms of disease. The specimens are preserved in a saturated solution of bichromate of potash, which has the property, not only of preserving the tissues, but also of coagulating the vitreous

humor so firmly, that it retains its natural form, when its coverings are removed.

The largest specimen is from a young woman, living in the country, who had been affected four years with hydrophthalmos. The eye had gradually become so enlarged, that the lids could be no longer closed: a large staphyloma of the sclerotic was forming upon the upper and inner portion of the globe, presenting the characteristic dark blue appearance, caused by the great attenuation of this membrane: the cornea was nearly twice its natural size, and exceedingly thin, as if it had been stretched to its utmost capacity by the pressure of the fluids within; the patient was already suffering from irritation and deep-seated pain in the eye; sight had long been hopelessly lost.

Surgical interference was there imperative. The staphyloma of the sclerotic had so far progressed, that any attempt to reduce the size of the eye by simple puncture, or even by removing the cornea would possibly, if not probably, be followed by a reproduction of the staphyloma, as is not unfrequently the case in such an affection. The eye was therefore extirpated in the manner which I will soon describe.

The wound healed in a few days, and at the end of a month, the patient returned to the city for an artificial eye, which was worn without the least difficulty, and fortunately, moved much more freely than usual in such cases.

The second specimen is an eye which I removed from an Irishman, connected with the Irish Brigade, of this city. In May last, he consulted me regarding his eye, which he stated, had been injured three weeks before, by a severe blow. On examination, I found the globe atrophied, vision wholly extinct, the iris and cornea united and much changed in structure. There was a large cicatrix on the upper portion of the globe a few lines from the cornea, the result, evidently, of a rupture of the sclerotic. The patient complained of severe and constant pain in and around the eye. There was great tenderness on pressure in the region of the ciliary processes.

As it is seldom I have found any constitutional treatment

beneficial in such injuries, I advised the immediate removal of the eye, not only to relieve present pain, but also to preserve the other eye from sympathetic inflammation. The patient, however, would not listen to this advice. Two months after this, he again visited me, stating that he had constantly suffered severe pain, which had become worse at night, and that he was willing to submit to any operation I thought best. His general health was also somewhat impaired. The eye presented nearly the same appearance as when I first saw it. Five days after the removal of the eye, the patient left Chicago with his brigade, wholly free from pain, with health improving.

The history of the third case is not without interest, as being an example of the great difficulty in relieving irido-choroiditis by medical treatment, when the pupil has become filled with organized lymph, and attached to the lens. The patient, aged nineteen years, stated that he had been subject to constant pain, with violent exacerbations for five years, following a severe inflammation, which, I suppose, from his description and the appearance of the eye, to have been irido-choroiditis. He stated that he had been treated, for a long time, without success, by one of the most skilful physicians of Glasgow, Scotland. The eye was atrophied, the pupil being closed with organized lymph, and the iris much discolored. The removal of the eye gave immediate relief. The patient suffered less inconvenience from the effects of the operation than before, and even felt better able to labor the next day, than for a long time previous.

The operation as recommended by Critchett and others, is very simple. The eye being firmly secured by means of a hook or toothed forceps, an incision is made parallel with the circumference of the cornea, through the conjunctiva. Each of the recti muscles is then seized by a blunt hook, passed beneath it, and divided as in the operation for strabismus. The eye at once protrudes, when a pair of blunt scissors (curved), can be passed behind the globe, and the nerve severed, close to its entrance through the sclerotica. The section of the oblique muscles completes the operation.

There is usually very little loss of blood. Still, it is well, I think, to prevent the formation of large coagula in the orbit, if possible, by injecting cold water freely after the operation. The only dressing necessary, is a simple wet compress. The lids are liable to become slightly œdematous, but there is little pain or inconvenience, so little in fact, that patients often persist in sitting up the next day, or even in going out. The wound is generally completely healed at the end of a fortnight.

The disadvantages of this operation consist almost wholly in the fact, that there is a smaller "stump" for an artificial eye, which is apt to have less motion, than when the anterior portion of the eye alone is removed. And yet, the muscles, the conjunctiva and the lymph, which is thrown out in quite large quantities, and which sometimes becomes organized, often form a much better support for an artificial eye, and give it more motion, than one might suppose.

. In the vast majority of simple cases of staphyloma corneæ, and of hydrophthalmos in its early stages, the "amputation" of the cornea and iris, will terminate favorably. Occasionally, however, the wound does not heal readily, the remainder of the eye becomes inflamed, which necessitates its removal. Occasionally, also, severe hemorrhage from rupture of the vessels of the choroid and retina produce large coagula behind the vitreous humor, causing excessive inflammation and suppuration.

In cases like those just reported, especially the last two, and in cases where foreign bodies, or a dislocated lens have been retained some time in the eye, causing chronic inflammation of the whole eye, we believe its entire removal will not only give less trouble to the patient, as regards the diseased eye, but will also, with more certainty, prevent sympathetic inflammation in the other one.

CASES of lead poisoning from taking snuff containing lead, are reported in the English journals.

ARTICLE IV.

A NEW MODE OF COUNTER-EXTENSION.

By E. ANDREWS, A. M., M. D.,PROFESSOR OF SURGERY IN LIND UNIVERSITY, ETC., ETC.

Every device which renders the treatment of fractures less irksome to the patient, is a blessing to the surgeon; hence the publication of the following plan for making counter-extension, which is, so far as I know, mostly new; but as it is very simple, possibly it may have already been practiced by others, who have not taken the trouble to publish it. If so, I cheerfully waive all claim to priority.

Every surgeon who has tried the modern plan of extension in fractures of the femur, by means of adhesive straps, has been struck with its efficiency and the perfect freedom which it ensures the patient from all pain and soreness about the leg and foot. As compared with the old fashioned gaiter, which, after a few days' use, hurts the instep and the heel severely, it is a surprising improvement. This complete immunity from suffering in extension by straps, has often prompted efforts to produce counter-extension, also, by similar means, and thus avoid the pain which always results from the perineal band. Indeed, this is a very important point, for in almost all cases of shortening after fractures of the femur, it will be found that there was no physical impossibility of keeping up full extension, but that the sufferings of the patient from the extending and counter-extending apparatus, either caused him to rebel and loosen his dressings without permission, or else wrought upon the compassion of the surgeon so far, as to induce him to do the same thing. A mode of counter-extension, therefore, which is as painless as the adhesive-strap extension, is equivalent to the power of ensuring unions of the fractured bones, at their full original length.

Efforts, in this direction, have been made by the use of oblique straps, passing across the body from the top of a Desault's splint, but in my hands I have found them failures.

The traction is too nearly transverse, and presses the splint too strongly against the hip. To avoid this difficulty, I have made use of the following device: I first cut three adhesive straps, each a yard and a half long, and two and a half inches wide; one of these being warmed, is applied to the back, on the same side as the fracture, extending from the waist to the top of the shoulder, and then down the breast, on the same side, as far as the waist in front. At the top of the shoulder it is left loose for the attachment of a hook. The second strap extends from the top of the same shoulder, obliquely down the back and breast, towards the opposite side, until the ends cross each other on the side of the waist. The third strap is placed as a belt around the body, to confine the ends of the others. Next, I take a Dessault's, or any other long splint to which I have previously had attached, at its superior extremity, a bent iron, which, passing over the curve of the shoulder, is hooked into the loose part of the two adhesive-straps where they pass over the top of the shoulder. The lower extremity of the splint is attached to the leg and foot, as usual, by adhesive-strap extension.

My experience with this dressing, is very happy. The traction is distributed over so large a surface, that it occasions no pain, but allows the surgeon to apply, with impunity, any amount of force necessary to make complete extension. A very cheap and efficient form of this apparatus may be constructed by attaching a curved iron, by rivets, to the top of a common Dessault's splint. A more elegant one may be made, by having half the length of the splint made of a brass tube, and the other half, of a rod with a screw surface to slide into it. On the rod, turns a nut, which, resting against the end of the tube, regulates the length, and makes extension. To the lower end, is attached the cross-piece for the foot, and to the upper extremity, the curved shoulder-piece. The whole is strong, simple, and elegant, and not costly. A variety of other forms will readily suggest themselves to any ingenious man.

I think a little experience will satisfy any one that, in

fractures of the thigh, counter-extension from the top of the shoulder, by means of adhesive straps, is by far the best way to fulfill a very troublesome and difficult indication.

ARTICLE V.

REPORT ON THE PREVALENT DISEASES OF THE CITY OF CHICAGO,
FOR THE LAST TWO MONTHS.

By N. S. DAVIS, M. D., Member of the Sanitary Com.

Presented to the CHICAGO MEDICAL SOCIETY, Nov. 22d, 1861.

The last report was dated September 20, 1861. From that time to the 10th of October, I noticed no change in the health of the city, or in the character of the prevailing diseases. During the second week in October, the days were warm and sultry, while the nights were cool. During that time I noticed a decided increase in the number of attacks of diarrhœa, dysentery, and typhus fever, and yet neither of these diseases were more prevalent than is usual at that season of the year. During the second week in October, several cases of scarlet fever occurred in the North Division, in the neighborhood of Chicago avenue and Wolcott street. Six cases in that neighborhood came under my care during the second and third weeks of the month. Three of these proved to be mild throughout their course, but the other three presented severe anginose symptoms. The tonsils and lymphatic glands behind the angle of the jaw became rapidly much swollen and hard. The breathing became noisy from the rattling of tenacious mucus in the throat, the deglutition very difficult, the pulse frequent, and skin hot, dry, and covered thickly with the characteristic red rash. For these cases, I applied externally cloths over the swollen glands, constantly wet with an infusion of aconite leaves, in which was dissolved muriate ammonia. After this had been used thirty-six or forty-eight hours, I substituted the frequent application of a liniment

of olive oil $\bar{3}$ ij., oil turpentine, $\bar{3}$ ss., and chloroform, $\bar{3}$ ss. Internally I directed the following, viz :

R.—Chlorate Potassa,	- - - - -	3j.
Hydrochloric Acid,	- - - - -	gttxx.
Tinct. Belladonna,	- - - - -	3j.
Water,	- - - - -	$\bar{3}$ ij.

Mix. Dose from 20 drops to a tea-spoonful, according to the age of the child, repeated every two hours. All these cases recovered without any unpleasant sequelæ. From that time to the tenth of the present month, I saw only three cases, all of a mild character. Since the tenth of this month, I have met with six or eight cases of this disease, in a neighborhood called "The Patch," lying between Old street and the Archer road, and between Arnold street and the south branch of the river. The inhabitants are almost exclusively Irish, and many of them living in shanties. In nearly all of these cases, the anginose symptoms were severe. The first case I saw, was a child about three years of age, Its skin was covered with the characteristic red rash, pulse 140 per minute; breathing short, hurried, and noisy from the rattling of tenacious mucus in the throat; the vessels of the conjunctiva were injected and eyes dull; the tonsils and palate were intensely red and much swollen; and the glands behind the angle of the jaw were also much swollen and hard. Deglutition appeared to be suspended, and the child was disposed to lie with the head thrown backward, without noticing anything around it. It died the following morning; doubtless, directly from mechanical obstruction to respiration. All the remaining cases I have seen in this neighborhood, have recovered, under the same treatment that was mentioned above. An incident occurred during the treatment of one of them, that may be worthy of mention. A little boy, six or seven years old, in the same family with the case that terminated fatally, was attacked suddenly and violently. I saw him about thirty-six hours after the commencement of the attack. The febrile action was severe; the rash had begun to show itself on the face and neck, and the fauces, tonsils, and glands behind the angle of the jaw were swelling rapidly. I directed

cloths wet in the cool infusion of aconite leaves and muriate of ammonia, to be applied externally over the swollen glands; and an acidulated solution of chlorate of potassa, with tincture of belladonna, to be given at short intervals, internally. In about eighteen hours I was summoned to see him in great haste, with the representation that he was "out of his head, and dying." On arriving at the shanty, I found the boy with less fever, less frequent pulse, and slightly less swelling of the glands, and parts connected with the throat; but his upper eye-lids drooped as if partially paralyzed; his pupils were widely dilated, and eye-balls almost constantly rolling; frequent sudden startings and tossing of the hands; and a flighty or incoherent state of the mind. Believing all these *peculiar* symptoms to be the excessive effect of the belladonna, I directed the solution containing it, to be discontinued, and in its place, three grains of iodide of potassa, dissolved in half a drachm of aqua camphora, to be given every two hours, and a cloth wet in cold water, applied to the head. The next day all the symptoms of cerebral and nervous disturbance had disappeared, and what was still more gratifying, nearly all the *anginose* symptoms of the disease had also disappeared, and the patient made a more rapid recovery than any other one that had come under my care. From conversation with neighboring practitioners, I am led to believe that the scarlet fever has been quite prevalent for the last six weeks, in the extreme south part of the South and West divisions of the city. About the first of this month, cases of erysipelas began to occur in my practice, and in two weeks eight or ten cases had come under my care. Of these, three commenced in the face; one on the chest; one on the nates; two on the arms; and one at the verge of the anus. The two commencing on the arm and on the side, were of the phlegmonous variety, and were accompanied by suppuration and considerable gangrene of the sub-cutaneous cellular tissue. That upon the chest occurred in the person of a child only eighteen months old, which had been vaccinated on the arm, and the vaccine pustule was about three days advanced, when the erysipelas commenced on the same side of the chest, spread extensively,

and was accompanied by extreme prostration and gangrene of the sub-cutaneous tissue. There was no appearance of erysipelas around the vaccine pustule, which passed through all its stages naturally. The child ultimately recovered. The other cases presented no unusual features, unless we include among them the following :

M. F., a native of Ireland, aged about thirty years, was suddenly attacked on the 21st of October, with a very acute and severe pain in the rectum. The patient was straining moderately at stool, when a sudden sharp, stinging pain was felt in the lower part of the rectum. It did not entirely cease, and in half an hour he went to stool again, when the pain became much aggravated and more continuous. In a few hours it became so intense, that he retired to bed and sent for me. I found him in bed writhing with pain, confined exclusively to the rectum, but without any fever or disturbance of the pulse, and without any swelling, redness, tenderness, or other sign of disease at the anus. To relieve the acute suffering, I directed the patient to take one-third of a grain of sulphate of morphia every two hours, and to keep a cloth closely applied to the anus, wet in a cold infusion of belladonna leaves. The next day I found the patient nearly relieved from pain, but complaining of much weakness. I again examined the anus carefully, and found no swelling, or other symptom of disease. The local narcotic application was continued, rest enjoined, and the internal use of the morphine omitted. The next day was passed comfortably, but on the 24th I was again called, and found the patient had had two evacuations from the bowels, and the pain, though by no means as acute as at first, was considerable. It had assumed a more dull character, became continuous, and was accompanied by moderate tenderness to firm pressure on the right of the anus. Still there was no redness or swelling externally, and only a very slight general febrile movement. Regarding it as probable that a cellular abscess was forming by the side of the rectum, I directed an emollient poultice externally, and anodynes internally, to allay pain and prevent too frequent evacuations from the bowels. The next day a slight degree

of swelling and hardness was perceptible at the point of tenderness. The swelling continued slowly to increase on the right side of the anus, until the 28th, when it began to extend rapidly across the perineum, and on the morning of the 30th, it had involved the whole right half of the scrotum. Up to this time there was no erysipelatous redness upon the surface, and the swelling, everywhere, had a peculiar feel. It was soft, but neither fluctuating or crepitating. In twenty-four hours more, the swelling had extended over the whole scrotum and penis; the skin had become red and tense with several vesications, one of which was filled with bloody serum. Apprehending the near approach of extensive gangrene, although no distinct fluctuation existed, with the council of Dr. E. ANDREWS, one or two free incisions were made into the most prominent part of the scrotum, which gave exit to a large quantity of foetid gas, and a very small amount of pus, which seemed to be diffused in the tissue, but nowhere collected into an abscess. During all the time, there was tendency to diarrhœa; a frequent, soft pulse; a coated and dry tongue; and occasional slight delirium. From the time the swelling began to extend across the perineum, to the 28th, the patient had been taking twenty drops of the tinct. ferri murias every four hours, with two grains of sulph. quinine and two of pulv. opii between. Notwithstanding these remedies and others of a supporting nature, gangrene extended rapidly throughout the skin and cellular tissue of the scrotum, penis, and perineum; thin and brown fecal evacuations continued to occur; the tongue became brown and dry; the mind wandering, with subsultus, and weak but rapid pulse. Efforts were made to improve the condition of the intestinal mucous membrane, by an emulsion of oil of turpentine and tincture of opium, alternated with tannate of quinine, liquor ferri nitratis, etc., but without success. The gangrenous parts separated so rapidly, that by the 4th of November, the whole scrotum and a large part of the skin and cellular tissue of the penis had come off, leaving the testicles surrounded by the tunica vaginalis, and the spongy bodies of the penis fully exposed. During the fifth, sixth and seventh,

the patient improved a little, and some granulations made their appearance on the surfaces from which the sloughs had separated. But on the morning of the 8th, a sudden and copious hemorrhage took place from the rectum, and the patient died in a few hours after. We have narrated this case, for the purpose of asking the Society the following questions, viz :

Was this a case of erysipelas commencing in the rectum, and extending, successively, to the skin and cellular tissue of the perineum, scrotum, and penis? or did the unhealthy and destructive inflammation result from a primary perforation of some point in the rectum, through which irritating and poisonous gases escaped into the cellular tissue, producing emphysema of the perineum, scrotum, etc.?

The patient had been troubled for several years, with, what he supposed to be, internal hemorrhoids. And from his last sickness, commencing with a sharp sting of pain in the act of defecation, from the fact that the mischief extended through the sub-cutaneous cellular tissue before involving the skin, and from the free escape of air from all the incisions, we are inclined to think the latter question suggests the true origin of the disease.

ARTICLE VI.

CHLOROFORM IN CATALEPSY.

By ASHBEL WOODWARD, M. D., of Franklin, Conn.

The patient, Miss E. W., seventeen years of age, was attacked early in August, 1861. The catamenia had been somewhat irregular, the general disturbance of the system being referred to a punctured wound of the foot.

Iron, guaiac, cinicifuga rac., and like remedies were administered without producing beneficial effects upon the general health.

At first, the paroxysms were slight in character, and of short duration, but gradually became more severe. The attacks

occurred but once in twenty-four hours, invariably commencing about seven o'clock in the evening.

The periodical nature of the complaint suggested the use of quinine, which was given for two successive days, in doses sufficiently large to produce a decided impression. The remedy seemed to aggravate the severity of the paroxysm, and was accordingly discontinued.

At this juncture, I was induced to try chloroform, from having previously used it with great success in treating infantile convulsions. The patient at first took three doses, of twenty drops each, diluted in a wine-glass of water, at intervals of an hour, shortly before the time of the expected onset. No improvement was experienced on the first trial. The second day the dose was increased to twenty-five drops, and five doses were given at intervals of thirty minutes. The remedy so impressed the system, that on the third day from the beginning of the chloroform treatment, the paroxysm did not re-appear. From that time onward, her general health has gradually improved till now, November 16, it is excellent.

It should, perhaps, be stated, that the patient showed an extreme dislike to the medicine.

Selections.

CHLORATE OF POTASSA—SOME OF ITS USES.

An Extract from a Lecture, by *S. R. PERCY, M. D.*, Professor of Mat. Med. and Ther., in the N. Y. Med. Coll. and Charity Hospital. Reprinted from the *Am. Med. Times*.

The diseases in which of late years this remedy has been most successfully employed, are diphtheria, and ulcerative or gangrenous sore throat. In diphtheria, it has been probably used more largely by Professor Jacobi than by anybody else, though latterly he has used NaO , ClO_5 , in preference to KO , ClO_5 , not only on account of its greater solubility, but because he informs me, it is more mild in its effects. In these diseases, it is used not only as a wash and gargle to the mouth

and throat, but it is also taken internally in considerable quantities. Whether it acts, as has been so repeatedly asserted, by giving up a portion of its oxygen to the blood, I will, after what you have heard, leave you to decide; but we do know that it is not all decomposed, as some of it is found in the urine, saliva, faeces, and sweat unchanged. Professor Tully and other eminent men, reject the theory that it imparts free oxygen to the blood. It is my opinion that it acts rather by its unity as a saline, possessing its own peculiar action, than by decomposition. That it produces a florid color of the blood without being decomposed, we have abundant proof. There are symptoms in typhoid fever that are much relieved by its careful exhibition. When, in this disease, the urine is found to be scanty and high colored, with the brain dull, owing to this scanty secretion, this remedy given in moderate doses, freely diluted with water, for twenty-four or forty-eight hours, will generally be found to give great relief by its restorative and diuretic action. I have seen it of great service in cases of scurvy, where the gums and lips and skin were of a livid color; and it may have acted in the manner that Dr. Garrod asserts that these salts act—by supplying potash to the blood; and if it acted in this way, it must have been decomposed. It did not as a free and efficient diuretic. In mercurial stomatitis it is a very successful remedy, both as a wash, and when taken internally, but it is not by any means a specific. In syphilis, it has been found of but little service. On the whole, it is perhaps the best remedy we have for buccal inflammations and for ozæna.

It is an interesting question to ask, but one which has yet to be answered, What is the difference in the therapeutic effects of KO , ClO_5 (chlorate of potash), NaO , NO_5 (nitrate of soda), NaO , ClO_5 (chlorate of soda), and KO , NO_5 (nitrate of potash)?

When taken in any considerable dose, it depresses the heart's action, frequently reducing the pulse twenty or more beats in the minute; this it does by its refrigerant and antiphlogistic powers. That it possesses tonic properties, as claimed by Fountain, and others before him, is entirely out of the question, excepting so far as its base may serve as a restorative hæmantic.

In what manner does KO , ClO_5 act, when taken in small or medicinal doses; and what are its effects and *modus operandi* when taken in inordinate doses? We have seen by the experiments of O'Shaughnessy, that it brightens the color of the blood; that it revived animals, when poisoned by medicines that acted on that fluid; and we have seen that a

part of it, at least, traversed the system and passed from it in the same state in which it entered it, thus producing its effects by its unity, not by decomposition. We have seen, again, by the experiments that I related to you, that in certain states of the system, decomposition does not take place, and that both base and acid are used for the reparation of tissues, and that this decomposition takes place only so long as it is needed as a restorative hæmatic; and that as soon as the system is saturated with it, it appears in the urine, and after awhile passes off, also, by the bowels. We learn, also, from the large experience of Professor Jacobi, in the Dispensary, that it is the best remedy we at present possess for the various forms of inflammatory sore mouth, both when used as a wash, and given internally; and that, though it frequently fails to afford relief, it is one of the best remedies in diphtheritic exudations, and in mercurial pytalism. The latter fact is verified by the previous experiments of Herpin, Blache, and Ricord. That it is no *specific* in phthisis, and, in fact, that it frequently does injury in that disease, we learn from the observations of Köhler, Flint, Gay, and others.

As to its effects in large doses, we see that it may even be fatal, and that death may be produced by its action on the kidneys, and upon the stomach and bowels. In the cases related by Tully, in which one ounce was taken at a dose, there was a great uniformity in the symptoms produced. In one instance, in one hour after taking an ounce, the pulse fell from seventy-two to fifty-six, and was considerably smaller and weaker, and in five hours the pulse had fallen to thirty-six. It produced, also, a severe, heavy, and oppressive pain in the stomach and bowels, with free and painful alvine evacuations. Even on the second and third days this severe and oppressive pain was experienced, and was only relieved by large doses of clear brandy, and excessively large doses of opium. If the opium was omitted, the pain returned, of a lancinating and sore character, with intolerance of the slightest pressure. The violence of the symptoms passed off after a copious diuresis, but it left the person with flatulence and other dyspeptic symptoms, which lasted for some time. The treatment in these large doses should be large quantities of warm flaxseed tea, the hot bath, and blistering with ammonia over the kidneys, with large doses of opium and ipecac.

Professor Jacobi has kindly furnished me a most elaborate culling of the German journals, on the effects and uses of this salt, and I am very sorry that I have not time to present these interesting notes to you, especially as Professor Jacobi's

own very extensive experience with the salt, has enabled him to make an excellent selection of what was worth mentioning. I hope to give you a collation from these notes at a future time. Dr. Jacobi's individual experience with this remedy is perhaps more extended than that of any other person amongst us; for in the German Dispensary, his clinic and private practice, I find he has notes of its administration in about two thousand cases, and, as I have before said, he uses it to a great extent, and with good success, both internally, and as a gargle and wash, in the various forms of stomatitis. In mercurial stomatitis, Dr. Jacobi amply verifies Ricord's experience, and has met with almost unvarying success in keeping off salivation. From the first day of a mercurial treatment for syphilis, he has given KO, ClO₃ or NaO, ClO₃ in drachm doses, without any abatement of the effects of the Hg (mercury), and no salivation, even where the Hg has been given, from four to six weeks. Dr. Jacobi informs me that about three years ago, he took two ounces of KO, ClO₃ in divided doses during two days. During the first day, there was nausea during the whole time, the urine was increased, free salivation all day, slight diarrhoea, and loss of appetite. During the second day, the nausea was more intense, a constant spitting, a very sore feeling in the intestines diarrhoea increased, with general uneasiness and irritability; he was not fully over its effects for several days. But Dr. Jacobi says, there are but very few to whom he would give this dose. As to its detection in the secretions, Isambard found it in the saliva five minutes after taking it, in the urine in ten minutes; he found it, also, in the milk, tears, nasal mucus, and perspiration, but not in the fæces or semen.

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SURGICAL NOTES FROM *THE LANCET*.

The following essentially practical observations, we condense from a paper in the December number of the London *Lancet*, by FREDERIC C. SKEY, Esq., F. R. S., Surgeon to St. Bartholomew's Hospital. They are in brief, the general principles as carried out in Mr. SKEY's wards in that institution, and will repay perusal:

Fractures of the Leg.—A well-made flock pillow, long enough to extend above the knee, and some inches below the foot, is an efficient, and most comfortable agent in the treatment of simple fractures of the leg, where the displacement is not great, nor the fracture very oblique.

When bound on to the leg by means of four or five straps with buckles, which are drawn very tight, the pressure, as is known, is diffused over the entire surface of the leg, and is unproductive of pain, or of such an amount of discomfort as to prevent sleep.

Strangulated Hernia.—One word on the subject of the division of the sac in cases of hernia. The operation of non-division has, I confess, disappointed me; and I am disposed to concur with many other authorities in the belief that the advocates of the operation, are not borne out in their estimate of its supposed advantages—such, at least, is the result of my own personal, and necessarily limited experience in the practice of St. Bartholomew's Hospital. The operation for strangulated hernia, although the theory is obvious enough, and the object to be obtained, clearly understood, is often an operation of considerable difficulty and of anxiety to the surgeon operating; and in a large number of cases, a young surgeon is not indisposed to suspend for the moment, his "pride of place," and to avail himself of the advice and co-operation even of his assistant, certainly of his seniors, should such be present. I consider the difficulty of the operation, as a rule, considerably increased by the attempt to divide the stricture from without inwards, or, in other words, without opening the sac which surrounds the intestine.

Lithotomy.—In SKEY's opinion, there are comparatively few cases of calculus, in which the operation of lithotomy is not available. He has adopted a rule never to operate with the lithotrite, unless the urethra will admit a catheter of the size of No. 9 or 10. Among others, he cites one case of a man, aged seventy-two, upon whom he operated with this instrument, no less than seventeen times. The stone was of lithic acid, and his experience shows this composition, and not oxalate of lime, forms the hardest calculi.

Stimulating Treatment of Burns.—In reference to the subject of burns, I have always been an advocate for the stimulating principle of treatment first suggested by Dr. Kentish. That principle, to my observation apparently so sound, has been repudiated of late years, by many eminent surgeons. The thoroughly negative action of carron oil and lime-water has been substituted for it, from which, I confess, I have never seen a corresponding benefit obtained. It is notorious, that the intense pain caused by a drop of hot sealing-wax, or other similar agent, on the skin, is much mitigated by the temporary application of great heat. The pain subsides in the course of a few moments, by holding the affected part to

the fire. The explanation is not, perhaps, very obvious, but the fact remains.

In July last, five men were admitted into St. Bartholomew's Hospital, with severe burns in the face, head, chest, and arms. One died immediately after his arrival. My house-surgeon, Mr. Richard Smith, was at the time ill, and the immediate charge of these cases devolved on the colleague, who applied the oil and lime-water to the arms and hands of each of the surviving men. At that moment Mr. Smith arrived, and completed the dressing by the application of a solution of nitrate of silver, (ten or twelve grains to the ounce of water) to the face, neck, etc. I did not see these men till the following morning, when all four complained of severe burning pain in the arms and hands, but stated they were free from pain in the other affected parts. The stimulating solution above mentioned, was applied to the upper extremities, and the relief at the expiration of about a quarter of an hour was complete. In two of the cases, some pain returned on the third day, and relief was obtained by the same means. My directions are simply these: In the case of infants or young children, wash the affected surface, if not very extensive, with a solution of nitrate of silver, in strength, six or eight grains to the ounce, and immediately cover up the part with a thick mass of cotton-wool; in the case of an adult, from twelve to fifteen grains, unless the surface requiring the application be very large. Should pain return, the solution may be advantageously resorted to at any early stage of the treatment.

Housemaid's Bursa.—Placing no reliance on blisters and iodine, he reduces the bursa to an abscess, by passing a full sized thread through the centre of the swelling; this thread is removed, in from two to five or six days, during which interval suppuration will inevitably ensue, and the case is then treated like any other, of abscess. Between 100 and 200 cures effected in this way attest its merit.

The same agent, and the same principle, is equally applicable to *ranula*. Indeed, it is quite remarkable with what rapidity this disease recedes under the action of the thread, whether the cyst be of average or of the largest size.

Wounds into Joints.—We only allude to this to express surprise at what seems Mr SKEY's want of familiarity with Barwell's recent excellent work on the Joints. Mr. S. mentions the case of a boy, admitted with a small wound on the inner side of the knee-joint, from which synovia escaped after his admission, and subsequently extensive suppuration occurred. He queries, after detailing the case, "Can this boy

recover the former mobility of the joint, or is ankylosis inevitable?" He believes the functions of the joint may be restored; but "as far as he knows," "the subject (the result of suppurative synovitis), has not been investigated," though "not devoid of surgical interest." Barwell would seem to have pretty clearly settled, that ankylosis is by no means inevitable in these cases,—*vide* his *Diseases of the Joints*, chap. I., p. 74, *et seq.*, American edition.

Hysteria.—In concluding his paper, he desires to "direct the especial attention of the younger members of the surgical profession to one of the most remarkable features associated with the treatment of disease. I allude to the great prevalence of *hysteria* in the cases of young women. It is quite remarkable how general is its presence, and how frequently it is interwoven with the symptoms of real disease. Abundance of cases recur to my recollection during the past year; reputed affections of the spine, and of the knee-joint more especially, at first sight of the most deceptive character. I would go so far as to assert, that its presence, in some degree or other, is almost universal. And yet how critically important is a correct diagnosis in such examples! What form of treatment has a greater tendency to aggravate the symptoms of hysteria, than that which may be judiciously applied to the cure of real diseases?

NITRIC ACID AND OPIUM IN DIARRHŒA AND DYSENTERY.

Dr. HYNES, in a communication to the *Lancet*, recommends the following formula, as one he has found highly beneficial in the autumnal forms of diarrhœa and dysentery:—

Compound infusion of gentian, eight ounces; tincture of opium, a drachm to a drachm and a half; nitric acid, twenty minims; one ounce to be taken after every liquid stool or painful alvine evacuation. A mustard plaster applied to the epigastrium, and drinking sparingly of ice-cold mint-tea, relieve the sickness and thirst that frequently accompany the severer form of these diseases.

Another formula is given by Mr. Hope, of Chatham, as follows:—

Nitric acid, two drachms; opium, two grains; water, two ounces; a spoonful to be taken in any vehicle three or four times daily.

Dr. HYNES adds, "I am unwilling to theorize upon the *modus medendi* of what I believe to be the principal agent in the above formula; yet I cannot help thinking that the nitric acid possesses some disinfecting agency, no less than an astringent efficacy, over autumnal diseases. 'The fumes of nitric acid are believed to be efficacious,' says the late Dr. Montgomery, 'in destroying the effluvia of typhus and other febrile diseases.' Diluted with water, so as to form an acidulous drink, Dr. Duncan, of Edinburgh, used to employ it in the low fevers that prevailed in the suburbs of that town. But independently of its chemical action over animal effluvia, it appears to me to act as a direct astringent in all diseases of the mucous membrane. Thus in purulent ophthalmia, what remedy is so efficacious as nitrate of silver in solution? In fact, in all mucous discharges it is almost the sole remedy upon which the surgeon depends; and of course the nitric acid is the chief agent in this valuable therapeutic. I am in the habit of employing a formula of a nearly similar kind as a topical application, but with double the amount of acid, in cynanche and in diphtheria; and I can speak very strongly upon its beneficial effects. In broken-down constitutions impaired by mercury, by syphilis or other irregularities, the above remedy will be found frequently valuable: and given in combination with taraxacum, it will prove very serviceable in sluggish conditions of the liver. I am in the habit of employing it with very considerable advantage in the diarrhoea of infants, and, combined with the muriated tincture of iron, in tabes mesenterica. I may further state that I have given the other acid, singly and in combination, the full benefit of a fair trial in all the above forms of diseases; and, without any prepossession or prejudice, my experience enables me to give a decided preference to the claims of the nitric acid in combination with opium, as a very superior therapeutic remedy."

ANÆSTHETICS IN MIDWIFERY.

At a recent meeting of the New York Academy of Medicine, B. FORDYCE BARKER, M. D., Professor of Obstetrics in the Bellevue Hospital Medical College, read a paper on the above subject, which elicited the warm commendation of such members of the profession as Drs. Delafield, Peaslee, Gilman, Elliott, Stevens, Detmold, Van Buren and Wooster. The *American Medical Times*, from which we copy, publishes

the paper, and we only regret that want of space prevents us from presenting it to our readers, in full—one of the ablest summaries of the views of progressive obstetricians, yet published. The substance, however, we give below; and shall, also, in due time, put our readers in possession of the main points of the discussion the paper has drawn forth among the members of the Academy.

After a spirited résumé and contrast of the diverse opinions held by leading obstetrical authorities, Dr. BARKER remarks that the experience of no one individual is sufficient to decide all of the points before alluded to, yet the accumulated observations of all who have had large opportunities will evidently contribute to as fixed principles and rules of practice as can, in the nature of things, be secured in the science of medicine.

In the minds of most medical men the *danger* involved from the use of anæsthetic agents is the grand question above all others. And here permit me to say, that the danger from their use in midwifery, is a question altogether distinct and apart from that of their use in surgery. There has not yet been reported, nor is there any reason for believing that a single death has ever occurred in midwifery practice from the use of *any* anæsthetic agent, where it has been administered by a medical man; and without being able to give statistical evidence in proof of the assertion, I will express my firm conviction, that it has been administered a greater number of times in obstetric than in surgical practice. There are sound and patent physiological reasons why its use should be much less dangerous in the former than in the latter practice.

1st. The conditions under which they are administered, are entirely different. In surgery, the anæsthetic is used to give relief from an *anticipated* suffering. In obstetrics it is used to destroy pain already existing. There is no law better known in medicine than that the tolerance of narcotics and anodynes bears a certain relation to the intensity of the pain. One suffering from peritonitis or colic, can safely, and with advantage, take a quantity of opium, which would be sure to destroy the life of the same individual when in health. For this reason, the risk from such an agent must be very much less in obstetrics than in surgery.

2d. The emotional conditions of the subject under the two circumstances, differ materially; in the one case tending to weaken nerve force and depress the vital powers, and in the other, to secure tolerance of such an agent by stimulating and supporting the same elements. I do not stop here to discuss

more fully the influence of the emotions in affecting the vital functions, although, it is a subject of great importance, and one well worthy of the careful study of every practical man. For my present purpose, I think that the mere statement of the proposition is sufficient to secure its acceptance by every mind. When a subject is about to submit to any painful operation and an anæsthetic is proposed, there is always more or less dread and apprehension as to the result, to which is often added an anxiety in regard to the effects of the anæsthetic, whether it will really destroy all consciousness of pain; and if so, whether it will not also destroy life. But in midwifery, the overwhelming desire is to be relieved from the recurrence of the pains, and when the effect of the anæsthetic has once been experienced, it is again sought for with the greatest avidity and confidence.

3d. In midwifery it is ordinarily unnecessary to carry the anæsthetic to the extent to which it is absolutely essential in surgery. In the former, it may frequently be carried to the extent of diminishing or destroying sensation, while consciousness is retained; or, if sleep is induced, it is tranquil not stertorous. But in surgery it is absolutely requisite that the patient be perfectly still, and the anæsthetic must be carried to the extent of complete sopor, the test of which is heavy snoring. Even if it be necessary to carry it to this extent in obstetrical practice, as it may be in some cases of natural labor, and ordinarily when operative measures, either manual or instrumental, are demanded, the two conditions which have been before mentioned as greatly modifying the danger from the anæsthetic still remain. Furthermore, it may be added, that the system is prepared by the previous use of the agent in a less degree, because there is now no emotional resistance to the effect of the anæsthetic. * * *

The propositions which Dr. B. offers as a basis for the discussion of the Academy, are founded on his own clinical experience in 786 cases, in 27 of which, he administered ether, and in the remaining 759, chloroform. Of these, 577 were cases of natural labor, occurring in his private practice. The others are classified under their appropriate heads, and were either cases of difficult labor in his private practice, or in his obstetric service at Bellevue Hospital, or were seen by him in consultation.

In a majority of these cases the chloroform was not carried to the extent of inducing profound anæsthesia. The chloroform was exhibited with the recurrence of pain in such a quantity as to destroy the sensation without overcoming con-

sciousness. The length of time under which patients were kept under its influence, varied from a half hour to, in one instance, over twenty-four hours. In most patients, the inhalations were not commenced until the second stage of labor, but where any special indications existed, it was given any time during the first stage. * * *

The following are the propositions above alluded to, and may be taken, we presume, as embodying the articles of belief of the advocates of anæsthesia in obstetrics :

1st. Anæsthetic aid is of the greatest value in the obstetric art, and chloroform is generally the preferable agent for this purpose.

2d. It exerts no injurious effect, when properly administered, either upon the health of the mother or the child.

3d. It is perfectly justifiable to use chloroform in natural labor, solely for the purpose of relieving pain.

4th. It is especially useful in calming the extreme agitation and mental excitement which labor often produces in very nervous women.

5th. It should be administered in those cases of natural labor where the progress is suspended or much retarded by the pain occasioned by previous diseases, or such as may supervene during labor, and in those cases where the irregular and partial contractions occasion intense and almost constant pain, but have no effect to advance the labor.

6th. It is of great service in spasmodic contraction and rigidity of the cervix uteri, in tetanic rigidity of the perineum, in certain forms of puerperal convulsions, and in the various obstetrical operations.

Book Notices.

LECTURES ON THE DISEASES OF WOMEN. By CHARLES WEST, M. D., Fellow of the Royal College of Physicians; Examiner in Midwifery at the Royal College of Surgeons of England, etc., etc. Second American, from the Second London Edition. Philadelphia: Blanchard and Lea. 1861.

If Bellona has shown herself no fostering mother of the peaceful literature of Esculapius, she, at least, deserves credit that fewer mediocre, and even worse, volumes have been foisted upon an impecunious and unsuspecting profession in

the twelve months just ended, than in many of their predecessors. If fewer books are printed, and fewer journals issued, those hardy few must, certainly, have some strong savor of value, that they should have survived the rough nurture of an atmosphere laden with villainous saltpetre, and aglow with the red wrath of war. And so we set it down as certain, that BARWELL and BUMSTEAD, and LAWSON and BEDFORD, are names that will live in our libraries, when peace shall once more fold her white wings and settle down amid the prairies and the forests and the mountains the guns of Sumter scared her from. An earnest, manly tone pervades the literature of to-day, before which fine-spun theories, glittering generalities and specious sophisms wilt and wither, like a dahlia-stem at the first frost.

Dr. CHAS. WEST will need no introduction, at our hands, to most of our readers,—at least, to those who have followed, with any degree of zeal, the specialty of our author. This volume embraces, in its 483 handsomely printed pages, the first part of the *Diseases of Women*, which appeared in Messrs. Blanchard and Lea's *Medical News and Library* for 1857-58, and the second part, promised, at that time, to "treat of all the remaining diseases of the female system." This latter consists of twelve additional lectures, commencing with diseases of the parts connected with the uterus, and including ovarian tumors and dropsy,—to which six lectures are devoted,—and closing with three lectures on diseases of the female bladder, of the urethra and vagina, and the external organs of generation.

Of the first part of the volume,—given at the time of the publication, our opinion is already on record; but we have glanced over,—all we have as yet had time for,—with renewed pleasure, the introductory lectures on the symptoms of diseases of women, the examination of the various classes of symptoms and the modes of examination. And as a better exponent of his clear, impartial, logical manner, and a certain charm of simplicity and directness most admirable, we add, at the risk of making this notice too lengthy for our limits, the following extracts :

“But just as disorder of the functions of other organs not seldom attends upon the physiological processes going on in the womb, so may it follow upon uterine irritation produced by disease; and a large proportion of the most obstinate forms of dyspepsia, and a still larger number of hysterical and nervous affections have been excited and are kept up by disease of the womb. In a great many of these cases, minute inquiry elicits evidence of functional disorder of the generative organs, as shown by disturbed menstruation, by leucorrhœal discharges, or by painful sensations, although none of these symptoms may have been so marked as to have engaged the patient’s notice; or she may have regarded them as trivial accidents not worth mention when compared with the other, and to her feelings the more important causes of her sufferings.*

Need I guard myself against being misunderstood, against being supposed to say that, in the management of a woman who is dyspeptic, your attention is to be turned less to the state of her stomach than to that of her womb; or that if a woman suffer from neuralgia, you are at once to suspect the existence of uterine disease? I mean no such thing; but *what I do mean* is, that, in the treatment of diseases occurring among the patients of the female sex, you should always bear in mind that, besides the ordinary causes of disease common to both sexes, there is another set of causes peculiar to themselves. Whenever, therefore, the ordinary principles of pathology fail to explain, or the ordinary proceedings of therapeutics prove inadequate to cure the ailments of any female patient, it behooves you to remember that, in her sex, and in its peculiar diseases, you may perhaps find a clue to the cause of her present symptoms, and discover indications which may show you how to accomplish their cure.”

The following paragraph closes the lecture on the modes of examination, and is so candid, so just, so moderate an estimate of that much used and abused instrument,—the speculum, as to, at once, redeem it from the odium its abusers subject it to. The quotation is, in part, his answer to the broad question, “What is your opinion of the speculum?”—

“In estimating the value of the speculum as a means of diagnosis, I think that the advances in knowledge of uterine disease, of which it was the indirect occasion by the impulse which it gave to their study, are sometimes confounded with

*In vol. ii. of Lisfranc’s *Clinique Chirurgicale*, Svo. Paris, 1842, from p. 182 to p. 256, are some remarks, with illustrative cases, on errors of diagnosis in uterine disease, which, though not free from the characteristic faults of that writer, will yet well repay an attentive perusal.

those positive additions to our information which we owe exclusively to the use of that instrument. The former have been very great indeed, and I think candor compels us to acknowledge that they have been due almost exclusively to persons who, not content with our previous means of investigating uterine disease, have labored to increase them by employment of instruments. The latter have certainly been less considerable, but nevertheless the speculum enables us in many instances to decide at once, and with certainty, upon the nature of a case, which otherwise we should have understood only after long and careful watching, to discover some minute polypus which the fingers alone would not have detected, to determine the source of a profuse leucorrhœal discharge, and to decide whether it is furnished by the cavity of the womb, or by the walls of the vagina; or, from the redness, congestion, or abrasion of the os uteri to infer the state of the womb generally, and thus to conduct our treatment upon the sure ground of positive observation, not upon bare presumptions. At the same time, however, that I hold the speculum to be in many cases of most essential service, I think that the endeavor of all of us should be to ascertain the minimum of frequency with which its employment is necessary. This is to be done not by decrying the instrument, still less by attributing dishonest motives to those who use it, but by soberly and honestly trying to test the value of the information which we derive from it, and learning to discriminate between those appearances which the speculum discloses that are of moment, and such as are of no importance."

Of the remaining lectures, comprised in the first part, three are devoted to menstruation and its disorders, and the rest, sixteen in number, to the uterus,—from simple inflammation to cancer,—its misplacements—including the allied misplacements of the vagina, rectum and bladder,—its inversion, and its tumors and outgrowths, this last, a most interesting section, embracing five lectures.

In never-flagging interest, in thoroughness and perspicuity, we know of no superior to Dr. WEST in medical authorship, without, indeed, it be that *facile princeps* of writers,—THOMAS WATSON, whom he, also, resembles very nearly, in a kindly appreciation of others' labors and feeling, in modesty, moderation and manliness. He is already a favorite with the profession, and this volume, for which Messrs. Blanchard and Lea

deserve a generous patronage, will win the esteem and admiration of the well-built professional mind.

PLACENTA PREVIA; ITS HISTORY AND TREATMENT. By WILLIAM READ, M. D.,
Member of the Massachusetts Medical Society.

However justifiable the complaint of want of interest and cultivation in the branch of medical service to which this volume belongs, may have been in time past, the evidence of its growing importance and rapid advancement in the last quarter of a century, is proof of the industrious interest taken in it by a large body of the best members of our profession, at the present. Indeed, no branch is cultivated with more zeal than obstetrics, and it is gratifying, and we think, truthful, to say, that none has advanced with more rapid strides, in the last quarter of a century. Many illustrious names, and almost innumerable monographs, as well as general treatises, could be mentioned in proof of this statement, but it is not necessary to do so now.

Since the lucid and masterly efforts of Rigby, the elder, to clear up the hitherto obscure subject of uterine hæmorrhage, it has undergone the most scrutinizing investigations at the hands of many very competent men, and strange to say, notwithstanding the various deviations, which, from time to time, have been made from the practical doctrine, taught by him, we are now almost exactly where he left the subject in point of fact. The volume of Dr. READ is creditable to his industry, and proves the great interest he has manifested for his subject, and the vast knowledge he possesses of its literature and nature, and will well pay for its perusal. We think there can be but one opinion of the main practical teachings of it, and no question of the plausibility of the theories discussed. The former are excellent and reliable, and the latter maintained with as many facts and as much logic, as are necessary to convince the most of his readers. The following are the particular conclusions at which he has arrived, viz :

1. The danger to the mother in placenta prævia increases the nearer the approach to full term of pregnancy. It is

better, therefore, to terminate labor when it begins prematurely, than to endeavor to conduct the pregnancy to full term.

2. The danger to the mother is less when the os uteri is completely covered, than when a portion only is involved with the attachment of the placenta, and least of all when the attachment is completely central.

3. The *condition* of the mother is of more importance than the absolute quantity of blood lost. A small amount will affect some persons more than a larger quantity will others. The first evident approach of danger, as syncope or its premonitos should serve as a signal for action,—the chances of recovery becoming momentarily less, when symptoms of failure in the system have commenced.

4. When the pains are vigorous, and likely to be so, rupturing the membranes may be sufficient in most instances to check the hæmorrhage. When the pains are not efficient, he would oppose this measure.

5. The danger to the mother is materially increased by artificial delivery, not so much on account of the operation itself, as the exhausted condition of the mother at the time it is usually done.

6. It should therefore be the aim of the practitioner, to deliver before great exhaustion has occurred.

7. If, from the progress of the case, or the conditions of labor, a resort to artificial labor must finally be had, it should not be delayed an instant beyond the time when the dilatation or dilatability of the os uteri permits the introduction of the hand into the uterus.

8. When, from the rapidly failing condition of the mother, or the presence of any cause artificial delivery is rendered impossible, the placenta should be wholly separated from the uterus, and means used to restore her, until delivery is practicable.

9. The tampon may be used to check flowing before the os uteri is dilated or dilatable, care being taken to not allow it to delay the delivery.

10. Ergot should not be used when an operation is likely

to become necessary, unless we can wait long enough for its effects to pass off, or at a time when its effects will not be established, until after the operation is over.

11. In cases where the exhaustion is excessive, and version is the only alternative, after the feet have been brought down, the body should be left undelivered until the uterus has been roused to contractions, or at least, withdrawn slowly.

The volume is published by order of the Massachusetts Medical Society, for the benefit of its Fellows, by Lippincott & Co., Philadelphia, and is a handsome, well-printed book of some 340 pp.

THE GORILLA: Being a Sketch of its History, Anatomy, General Appearance and Habits. By LEONARD J. SANFORD, M. D., New Haven, Conn. Dec., 1861.

Our countryman, Du Chaillu, opened a rich vein of something more than nine days' wonder, when he returned from his "Adventures in Equatorial Africa," with the first entire skeletons and stuffed specimens of the largest anthropoid ape yet seen. And though his reception here was anything but enthusiastic, British savans and the British public have certainly lionized him *ad nauseam*,—naturalists have feted him, curators and librarians have denounced him, and his proteges have been taken as far into the pulpit as the Rev. Mr. Spurgeon could conveniently get them.

Here, we are just beginning to get interested in the subject, and this pamphlet reprint,* by Dr. SANFORD, is the first monograph we have yet met with.

For fifteen years has this animal been known to modern naturalists, and yet with such an intertexture of fact and fiction, as to place him on the shadowy confines of romance, almost with the phoenix and the roc. The name itself, as Dr. SANFORD tells us, is much older, being used by the Carthaginian voyager, Hanno, B. C. 600, and was applied to the present species by Dr. Savage and Prof. Wyman, of the Soc. of Nat. Hist., at Boston, in 1847, to whom the Rev. J. L. Wilson, an African missionary, forwarded a skull and some

*From the *American Journal of Science and Arts*, Vol. xxxiii, Jan. 1862.

other bones of a skeleton from the Gaboon coast. Dr. S. gives a general sketch of the anatomy, comparing its striking points of resemblance with man, closing his remarks on the osseous system, as follows ;

The anthropoid apes take rank in relation to man, according to the degree of approach of their skeletons to his. By this criterion, the gorilla has a high, perhaps the highest position. His skull, as we have seen, has fewer human resemblances than those of some other species, but in the rest of his bony framework he stands much nearer the archetype. A comparison of the entire skeleton, among the series, leaves us in some doubt as to the exact place he should occupy. Professors Wyman and St. Hilaire put the chimpanzee first, and the gorilla second ; while Prof. Owen states, that the tailless quadrumana recede from the human type, in the following order : viz, gorilla, chimpanzee, orang-outan, gibbon.

The *muscular system* of the apes, throughout its entire structure and arrangement, conforms very closely to that of man. So also the structure and form of the *lungs* and *heart*, and the distribution of the *blood-vessels* and *nerves*, are all but identical with the corresponding organs in man. But the *brain*, though having the elliptic form of its human congener, differs from it considerably in size* and points of structure. In bulk, and in the number and size of its convolutions, the discrepancy is great. The *cerebellum*, relatively to the *cerebrum*, is larger than in man. This disparity of size, consequent upon the larger cerebellum, is a characteristic of the brute creation, and it increases up to a certain limit, as we recede from man in a descending series. It is indicative of excessive animalism, or rather of a preponderance of the purely animal functions.

The brain of anthropoid apes is distinguished from that of other brutes, in possessing a process of structure known as the *hippocampus minor*—this is a minute, nipple-shaped body, which is found in the posterior cornu or horn of each *lateral* (the largest cavities of the brain) *ventricle*. Its existence in the apes, to the exclusion of all other animals except man (for this, so far as known, is a fact), is the more remarkable, inasmuch as the posterior lobes of the brain, which contain the cornua, are very inconsiderably developed in them.

In the circle of their functions, and in the phenomena of

*The weight of brain in a full grown gorilla, is from 10 ounces to 12 ounces, troy ; in the chimpanzee and kooloo-kamba, it is somewhat greater than this. In the full grown negro, it ranges from 3 pounds 1 ounce, to 3 pounds 9 ounces 4 drachms, troy.

periodicity, the apes, again, make a close approach to the human species.

The gorilla, in general configuration, is quite like the apes, but his larger size, and more compact organization, deprive him of their agility of motion—and so, by good right, of their name. In motion and manner, he must be an awkward and ungainly ape. He is accomplished, however, by possessing great strength—in this particular, as also in ferocity of disposition, we conceive him to be something terrible. His *physique* judged of by man's, is graceless and shabby in the extreme; in the comparison, we are justified in characterizing him, as Buffon has done the sloth, “a bungled composition of nature.”

THE PRINCIPLES AND PRACTICE OF OBSTETRICS. By GUNNING S. BEDFORD, A. M., M. D., Professor of Obstetrics, Diseases of Women and Children, and Clinical Obstetrics, in the University of New York; Author of “Clinical Lectures on the Diseases of Women and Children.” One vol., pp. 731. S. S. & W. Wood, New York; for sale at S. C. GRIGGS, Chicago.

Dr. BEDFORD has presented the profession with a first rate work, in the book titled as above, and we are deceived, if we be not universally sustained in this opinion. Chaste, simple, yet attractive in style, full and yet concise, it will be, to the American practitioner, an interesting, as well as profitable library companion. Although given in the form of lectures,—of which there are forty-six, the arrangement and order of the subjects are natural and appropriate, enabling the author to include, in a small compass, a large amount of well digested matter. In four lithographic plates, he endeavors to give us a better idea of the appearance of the breasts, which indicate pregnancy, than can be conveyed by means of description. They are very appropriate, and form a prominent feature in the book. The Messrs. Wood have performed their part admirably well. The printing is clear and beautiful, and on excellent paper. The binding of the copy sent to us, is the only objectionable feature; it is not so substantial as a book, that will be used so much, requires, in our estimation. As an American work, we are proud of it; and would cordially recommend those in need of a text-book on obstetrics, either as an office or college companion, to buy it, believing they can do no better.

Editorial.

"THE CHICAGO MEDICAL EXAMINER," FOR 1862.—With the present number we issue a full index to the volume of 1861. The next issue will commence a new volume; and notwithstanding the war, we trust that all our old subscribers will continue, and many new names will be added to the list. Indeed, the number of remittances already received from new subscribers to commence with the volume for 1862, is most gratifying. There will be no change in the editorial or other management of the EXAMINER for the coming year. In addition to ordinary communications, we shall continue to publish faithful reports of the doings of our local medical societies and colleges; and, also, many of the clinics in the hospitals and dispensaries.

Whatever we deem calculated to advance the education of the profession, or the science and art of medicine, we shall commend and sustain, without regard to the source from which it comes. We shall not imitate some of our neighbors by filling our columns with personal scandal, and cowardly insinuations. For we believe the almanac which says, "The man who tries to build himself up by pulling others down, is like one who sits himself on a wheelbarrow, and tries to wheel himself to glory."

The unhappy state of the country has caused many of our exchanges to stop publishing; but the EXAMINER will not stop on account of war and rebellion at home. If, however, England, or any other powerful European nation should be ungenerous enough to take advantage of our domestic strife, to commence an unjust war upon our country, we might be constrained, not only to lay down the editorial pen, but our whole *professional* armor, also; and to shoulder a knapsack and rifle to aid in defending the honor and integrity of our country until the last foe was driven from the field.

VALUABLE DONATION.—The Library of the Medical Department of Lind University has been enriched by a copy of *Rosenmueller's Abildungen der Anatomie*,—The donation of Dr. J. J. LESCHER, of Mt. Carmel, Ill.

We give place here, at the request of the Faculty, to the following extract from the minutes of the proceedings relative to the receipt thereof, as also to the interesting letter of Dr. LESCHER :

“A letter was received from Dr. J. J. Lescher, of Mt. Carmel, donating to the school a valuable work on Surgical Anatomy, with plates, and text in German and Latin. On motion of Prof. Davis, it was—

Resolved, That the Faculty of the Medical Department of Lind University tender their cordial thanks to Dr. J. J. Lescher, of Mt. Carmel, Ill., for his very valuable donation to the College Library.

It was further resolved that the Secretary embody the resolution in a note to the Corresponding Secretary, for transmission to Dr. Lescher.”

The following is Dr. LESCHER's letter accompanying the volumes :

MOUNT CARMEL, ILL.,)
Nov. 13th, 1861. }

Prof. WM. H. BYFORD, M. D., Chicago—

My Dear Sir :—I take the liberty to request you to present in my name, to the Medical Faculty of Lind University, for the use and behoof of whomsoever they will, the accompanying copy of *Rosenmueller's Abildungen der Anatomie*, together with the *Text* in Latin and German—descriptive of the *Illustrations*, including the Surgical Anatomy of the same, the *Chirurgisch Anatomische Abildungen*.

Intrinsically valuable as are these works of art, both by reason of their rarity and the beauty and truthfulness of the delineations, they possess yet greater worth in my sight, inasmuch as they descended to me from my revered and beloved father, of whose large library, accumulated during a half century at great labor and expense, they formed a part.

Believing, however, that they may become more useful in being placed under the control of the worthy teachers of a

young and vigorous institution devoted to the spread of "the heaven-descended art," than to remain in a private library, I am induced to make the above named disposition of them. In this connection I may be allowed to speak of my father:—

Born in 1783, a descendant of Swiss parents,—his father born on the North Atlantic ocean,—my father began collecting a library as early as 1800. At the date of his death, in 1854, it numbered 994 volumes—costing from \$1.00 to \$87.50 each. Possessed of no means in early life, with but six months "schooling," (in German) to gratify his taste for reading, he was fortunate in forming the acquaintance of learned men of Lancaster, Penn., chief amongst whom was the pioneer of the German Lutheran church, in America, the Rev. Dr. Henry Mühlentburg, the founder of a family since noted in theology and legislation.

Possessed of a large and rare collection of books, Macænas-like, he encouraged my father, giving him free and generous access to his library. Residing some twenty miles in the country, in the pursuit of a miller's boy, he would frequently walk the distance to borrow a book of the Rev. Dr., for perusal at night, after the toils of the day, and as he could raise money, he would purchase of him an occasional volume.

Of these evidences of his early tastes and studies, I now possess several samples, which I prize highly, chiefly, because of their associations.

One of the rarest works, now in my library, which he purchased of a monk, is in 13 vol. folio, containing 23,582 pages, double column, German text, with Latin notes, richly bound, and beautifully printed, entitled, "*Historisch-Politisch Geographischer Atlas der Grantzen Welt; oder grosses und vollstandisches Geographisch—und Critisches Lexicon. Von Mr. Brouzen La Martintere.*" Leipzig, 1744.

With my best wishes for the Faculty respectively, and the University, which is their pride,

I am very truly, your friend,

J. J. LESCHER.

ARMY SANITARY COMMISSION.—One cannot resist the conclusion, from the perusal of the various publications of this body, that a great laxity, even to criminality, exists in some of the regular machinery of the War Department, that thus necessitates the organization and maintenance of a charitable institution of such magnitude as this,—for to this eleemosynary complexion has it come at last.

Organized originally, as we were led to believe, mainly as an advisory body to the Medical Bureau, it has grown in importance and value until it now actually rivals that institution,—not alone in the furnishing of hospital supplies and stores, but in the organization and operation of the hospitals themselves; and,—we regret that it should be so,—the field for these guerrilla Samaritans is so ample, that, as yet, conflicts of authority, between them and the army medical officers proper, are matters of rare occurrence. That such a fact should be, is a stigma upon the Medical Bureau and its officers; that two-thirds,—certainly one-half of the sick and wounded should be dependant upon the chance donations of the public, already taxed to support an organization, ostensibly for this purpose, is a crying shame upon the Department of which that Bureau is a creation. And the evil ramifies down, from the chief of that Department, to the private in the ranks, who, knowingly unfit for duty, either actively or passively, burdens himself and his infirmities upon the Government. We know of officers, who, to obtain their commissions, have had mustered into their commands, to attain the necessary number, men totally unfit for service, with running sores, with herniæ, with carious tibiæ, etc.; of others, who have thrown difficulties in the way of their sick and wounded being discharged, for similar reasons. One man, we saw, only a short time since, who has helped fill up *three* companies, obtaining his discharge each time, on account of a large open ulcer over a carious tibia. It is not necessary to say that the fellow found his account in this trick, through the various captains, or that it was done through their cognizance, the matter being one of seller and purchaser,—and in which the ulcer and the Government were alike sold.

Would such a trick be feasible,—would such a state of affairs obtain,—would we have “20,000 unfit for duty” in a single division of the army, if mustering and inspecting officers did their duty? And if not, and other officers from the inspector up to Surgeon-General FINLEY were competent and faithful, would there be any need of such a stupendous Charity Society as the *U. S. Sanitary Commission* has degenerated into?

We presume there is no necessity for us to explain our motives in these remarks. They are made in no captious spirit; nor will we yield to any in landing the self-sacrifice and public zeal which prompts the members of the *Commission*; still less do we underrate the value of the good they do. What we regret and object to, we have clearly stated:—the *necessity* for such self-sacrifice and exertion, and the existence of such suffering, destitution and inefficiency as their reports show.

Incidentally, we may mention that the Chicago Branch of the *Commission* has furnished all the hospitals at Cairo with clothing, bedding, food, and miscellaneous articles, and has in store at that place, 120 boxes more, in reserve for an emergency. It has also supplied the hospitals at Rolla, Sedalia, Tipton, Otterville and Bird's Point, Mo., Paducah, Ky., Mound City, Ill., and Ft. Leavenworth, Kansas. Some fifteen large boxes of these goods are daily received, from all parts of the State, and from twelve to fifteen dispatched to the various points above mentioned. Through its instrumentality much good has been done in the various camps, in enforcing sanitary and police regulations, in seeing to the rations and modes of cooking, etc., aside from the more strictly medical province, in which much has been done in the way of weeding out irregular practitioners, instituting order, cleanliness and discipline, and otherwise ameliorating the condition alike of the sick and well.

EXTRACTS FROM CORRESPONDENCE.—Dr. S. W. WALLACE, writing us under date Oct. 28, 1861, mentions that he had recently kept a lady patient,—whose hand had been so severely

crushed as to demand amputation at the wrist,—under chloroform for two hours, and without any bad result.

—A New York correspondent sends us a sketch of the introductory lecture to the tenth annual session of the New York Ophthalmic School, delivered at the hospital, No. 63 Third avenue, by Dr. M. STEPHENSON, before a large number of students and professional friends. The address was one of much interest, and we are glad to know that the school is doing well.

“With over a thousand patients per annum at the Institution, great facilities are always afforded for clinical instruction.

The attending surgeons are Dr. M. Stephenson, Dr. J. P. Garrish, and Dr. M. P. Stephenson.

The hospital is always open to professional brethren, especially those who may visit the city from a distance.”

G. G. S.

—The following we take from a letter from C. DUMREICHER, M. D., formerly of this city, but at present Assistant-Surgeon at the General Hospital, Wheeling, Va. Dr. DUMREICHER served through the campaign with Gen. Rosencranz, in Western Virginia, and has been in the service from an early date in the war. He says:—“The time that I have lived in the field has been extremely interesting. I have seen and practiced more surgery and medicine in this short time, than I would have been able to do, in civil practice, in a much longer period, and I have seen some very interesting cases. At the battle at Carnifax Ferry, the hospital of our wounded was under my charge. One man was shot through the chin. The ball fractured the lower jaw terribly; passed along the lower border of it, and stopped immediately above the external carotid. After a very careful and delicate dissection, I extracted the ball. The loss of blood from the wound was frightful, and I thought the man would die; but he recovered, and two weeks afterwards, I sent him to the General Hospital in Cincinnati. Another man was shot through the upper lobe of the right lung, and got well. I did not lose a single wounded man after that battle, except the amputations, and these were nearly dead before the operation. At Gauley

Bridge, a very singular case was under my treatment. A man, sick with typhoid fever, was sent from the camp, about six miles above my hospital, to me for treatment. On the road, he was shot from across the river. The ball entered his body at the lower border of the right scapula, glanced off, and took its direction upwards, through the neck, went under the lower jaw, across the mouth diagonally, fractured the left superior maxillary, and lachrymal bones, and was cut out by me, immediately below his left eye. It was a heavy Minié rifle ball. There was some loss of blood from the mouth, but not much otherwise. The muscles of the tongue were somewhat cut, but not very badly. No important artery or nerve injured. A very strange case. The man got well. Another soldier's tibia was injured by a shot, and fractured by a subsequent fall. Several surgeons decided to amputate, and sent to me for it. The fibula was intact, no artery or nerves cut, and I made up my mind to save his limb, and succeeded.

* * * * Brig. Surg. Clendenmin, whom you know, is surgeon of this hospital. At the present time, I am prescribing for between 70 and 80 patients, every day.

ARMY MEDICAL SOCIETY AT CAIRO.—We learn from the *St. Louis Republican*, that an association, called the Army Medical Society, has been formed at Cairo, composed of the surgeons and assistant surgeons connected with the various regiments and hospitals at Cairo, Bird's Point, and Mound City; its object being the improvement and diffusion of medical science among the members. The preliminary meeting was held at the office of Dr. Taggart, the medical purveyor at that post, and was temporarily organized by Surgeon Stahl being called to the Chair, and Brigade-Surgeon Burke appointed Secretary. Brigade-Surgeon Brinton explained the object of the meeting as being one in which all the surgeons, now engaged in the army, should feel a deep interest during the war. Surgeon Bringham moved that a committee be appointed to report a list of officers for the government of the Association. The following gentlemen were elected: Surgeon Stearns, President; Vice-Presidents, Surgeons Davis and

Bowman : Secretary, Surgeon Taggart. They will hold a meeting once a week, and two papers will be read at each, for discussion ; and every subject connected with army surgery will be discussed.

WORK ON "NEW REMEDIES."—In connection with Prof. PERCY, an extract from whose pen we publish in the present number, Dr. ELSBERG, of the *American Med. Monthly*, is preparing a work on *New Remedies*. Dr. E. says : " It is based on the celebrated Essay of Dr. GUBERT, to which the *Société des Sciences Médicales et Naturelles de Bruxelles* awarded its full prize, and the erudite elaboration thereof by Dr. RICHARD HAGEN, now in course of publication at Leipzig, Germany. Our work will embrace all valuable medicinal agents introduced into the treatment of disease since the year 1830, up to the present day, detailing their history, description, action and uses, and giving the most approved Formulæ of Preparation, Preservation, and Administration. In Formulæ it will be particularly full, for the use of both physicians and pharmacists. Novelty not being deemed a sufficient passport for admission into confidence, unless sustained by merit, and with the only object—to be useful—and the only means—*Labor to approach the Truth*—constantly before us, we are determined that no really useful remedy, introduced during the last thirty years, shall be slighted, while no undue prominence shall be given to undeserving articles. Nor will uncertainty or ignorance at any point that the actual advance of science has not reached, be sought to be concealed by illusory hypothesis or ill-founded statements. Any heretofore unpublished information calculated to add to the practical utility of the work, that may be in the possession of any of our readers, will be gratefully received, carefully considered, and, if used, appropriately acknowledged."

OBITUARY.--Among the recent deaths of eminent men in our profession, is M. SCRIVE, Chief Inspector of the French Army, and Medical and Surgical Historian of the Crimean Campaign. He died at the hospital *Val de Grace*, Paris, ætat 46.

Also Sir JOHN FORBES, M. D., near Reading, England, well-known, aside from his other writings, by his volume on *Nature and Art in Disease*, and the discussion it gave rise to.

NEW APPLICATIONS OF THE PER-CHLORIDE OF IRON.—Dr. Rodet, of Lyons, claims that a solution of per-chloride of iron will destroy the virus of hydrophobia, and recommends it as a specific after the bite.

M. WAHT, principal physician of the Military Hospital, at Nice, reports the successful treatment of an *ongle incarné*, or ingrowing toe-nail, which had partially disabled him for a long time, by the use of the salt, after vainly trying the Vienna paste and alum. The powder was obtained and insinuated as deeply as possible between the free edge of the nail and the ulcer; fifteen minutes after, the Dr. could bear his entire weight on the foot, a thing he had been unable to do before for many months. Three weeks after, by means of a bath, he removed the hardened layer of tanned skin, and found a new tissue beneath which perfectly resisted the pressure of the nail.

Other continental physicians testify to the efficacy of the salt, in various cutaneous affections. M. BOUTRON DES CLAYES, of Créteil, reports two cases,—the first of an old man, suffering from eczema and an intolerable itching in the perineal region, unallayed by starch poultices, tar-ointments, etc. The liquid per-chloride was lightly applied twice, at an interval of twenty-four hours, each time coated over with collodion. The third day the cure was completed. The second case was that of a strong man, forty-seven years old, suffering from itch, and also, an eruption of *lichen agrius*, of long standing, on the fore-arm. An ointment of the per-chloride, bicarbonate of soda and hog's-lard was applied, and in a few days the itch had completely disappeared, the eruption was subsiding, and a cure was rapidly effected.

PHYSICIAN'S HAND-BOOK, ETC.—From W. A. Townsend, 39 Walker street, New York, we have received the *Physician's Hand-Book of Practice*, for 1862. This is the well-known little volume of Dr. ELMER, and contains, in addition to the usual diary for medical practice, which is very full and complete, an amount of condensed information which the young practitioner will find very useful.

Townsend also re-publishes *Braithwaite's Retrospect*, of which we need not, here, do more than speak,—preferring, as heretofore to notice it, *in extenso*, on receipt of the number.

MORTALITY IN CHICAGO.—The following table shows the mortality in each division for each month of the years, 1860–61. The total mortality for the past three years has been 1,862 for '59, 2,056 for '60, and 2,089 for '61.

	1860.			1861.		
	NORTH DIV.	WEST DIV.	SOUTH DIV.	NORTH DIV.	WEST DIV.	SOUTH DIV.
January.....	25	48	42	63	59	53
February.....	31	61	36	36	53	46
March.....	38	74	68	43	73	56
April.....	44	48	39	36	46	44
May.....	32	40	30	43	41	47
June.....	41	66	48	36	45	50
July.....	95	116	77	67	85	87
August.....	86	122	100	44	126	92
September.....	43	69	60	47	98	78
October.....	34	65	50	28	38	50
November.....	58	52	60	89	60	64
December.....	46	63	49	40	83	72
Totals.....	573	824	659	522	810	739

MORTALITY AMONG MEDICAL JOURNALS.—Since our last issue, the following periodicals have suspended publication: *North American Medico-Chirurgical Review*, *Berkshire Medical Journal*, *Cleveland Medical Gazette*, and *St. Louis Medical and Surgical Journal*. There are now just about one-third of the medical publications issued, that commenced the year.

THE SPASMODIC CHARACTER of whooping-cough is said to be thoroughly controlled by the exhibition of an infusion of common clover-hay, after the following formula:

R Trifolii in fœno, - - - - 3ij.
Aq. bullient, - - - - Oj.

Macerate for four hours and strain. Dose, a tablespoonful, three times a day, to a child five years old. The hay should be sweet and leafy; and this infusion is to be used in conjunction with other remedies, according to the indications.

PERSONAL.—We understand that Dr. J. V. Z. BLANEY, Medical Purveyor at this post, has been summoned to Ft. Leavenworth by Gen. Hunter, to assume his duties there as Brigade-Surgeon.

CURE FOR WHOOPING COUGH.—Dr. B. Woodward, of Galesburg, Ill., uses a new formula with which he states to have succeeded beyond his most sanguine hopes. Take best roasted Java coffee, four ounces; boiling water, eight fluid ounces; displace and add loaf sugar q. s. to make a syrup. When nearly cold, add tincture of veratrum viride, two fluid drams; fluid extract of conium, four fluid drams. Give from one-half to one teaspoonful every four or five hours, till the cough is well. This treatment will effect a cure in from eight to twelve days.—*Med. and Surg. Reporter.*

DUPUYTREN ON SPURIOUS PREGNANCY.—Prof. Simpson, in lecturing on spurious pregnancy, tells the following good story of Dupuytren. "Such cases are, happily, extremely rare; but you do meet with them occasionally, and not in patients within the walls of a lunatic asylum only. It is told that a lady once came to Dupuytren, to ask what was to be done in her case, as she had now been in the family way for fourteen years—and the great Parisian surgeon gave it as his opinion, that as the boy must be tolerably well grown by that time, the best thing the lady could do was to swallow a tutor immediately, that his education might not be neglected."—*Med. News & Library.*

— Professor Peaslee recently performed the operation of tapping, on a young lady, at Pittston, Pa., and removed *one hundred and forty-nine pounds and three ounces* (149 lbs., 3 oz.) of dropsical fluid. It was weighed in Dr. Peaslee's presence, by Dr. Lawson and Mr. J. Loveland, of that place. The abdominal circumference of the patient before the operation, was *six feet and two inches*, (74 inches.)

This was the same patient, mentioned in the *Am. Med. Monthly*, June, 1861, from whom Dr. Peaslee removed *one hundred and thirty-five pounds* of fluid (135 lbs) on the 29th of April last. The circumference then, was five feet and seven inches, (67 inches.)

PHYSICAL TRAINING.—Among the Parliamentary papers recently issued, are two small volumes containing some information collected by Mr. Edwin Chadwick, during the recent education inquiry. Mr. Chadwick shows in these papers that the present practice of long hours of teaching, is a wide cause of enervation and predisposition to disease, and induces, also, habits of listlessness and dawdling. The half-time system is found to give nearly, if not quite, as good education as the whole time; and common sense tells us that a boy who has acquired the same amount of knowledge in half

the time of another boy, must have obtained proportionately superior habits of mental activity. It is the alertness, combined with the bodily aptitudes created by drill, that gives comparatively stunted boys of the town, a preference over the strong, robust lads from the coast. Good school-masters say, that about three hours a day are as long as a bright voluntary attention on the part of children can be secured, and that in that period they may be readily taught as much as they can receive; all beyond the profitable limit is waste.—*Med. Times and Gazette*.

PODOPHYLLIN AS A SUBSTITUTE FOR MERCURY.—This article, the active principle of the *podophyllum peltatum*, *May apple*, or *mandrake*, is just now coming into notice among our transatlantic neighbors, as a substitute for mercury. The suggestion of its use came, however, it is said, from an American oculist, who, in 1854, when about to leave the English shores, placed his daughters under the care of a celebrated physician, and gave the latter a bottle of this remedy, which he requested should be prescribed instead of mercury, whenever a mercurial was required in their case. Following this suggestion, the physician has used it continually since, and thus speaks of its administration and effects. If given in quarter-grain doses, twice a day, combined with opium, to check its aperient action, and continued for a few days, profuse salivation will occur, with, however [no?] fetor of breath, or ulceration of gums. This, however, rapidly subsides on discontinuing the medicine. It is very slow in its action, often ten or twelve hours, but in the following combination induces one or two copious stools, attended with the sensation of the bowels having been thoroughly emptied, and without tenesmus:—R. Podophyllin, gr. j.; pulv. rhei, gr. ix.; pulv. capsici, gr. ij. M. Ft. pil. iij. S. one or two. This, for an ordinary aperient. Its action on the liver, if given in small doses, may be as much relied on as mercury, while the effects upon the system generally are, by far, less injurious.—*Am. Med. Monthly*.

GUN-SHOT WOUNDS PRODUCED DURING THE LOADING OF ARTILLERY.—Dr. Cortese relates (*Omodei Annali Univ. di Med.*) five cases, and gives the following summary of his observations. No other blow of a projectile imparts so great an amount of commotion to the entire limb, and the surgeon is therefore compelled to direct his attention to the whole extremity, whatever amount of lesion may be manifest in the hand. A neglect in this regard may lead to gangrene gaining possession of a large portion of the limb, or to a generalized suppuration.

while a diminished power of re-action in the injured parts may give rise to purulent infection, or render amputation useless. When the hand is severely torn, its disarticulation and even the amputation of the forearm is insufficient to secure recovery, because the tissues are more or less destroyed in their intimate structure in consequence of concussion. In such cases, the arm should be amputated. The sooner amputation is performed, the greater is the probability of a favorable result. The rapid and very extensive tumefaction of the limb constitutes a sufficiently certain criterion of the severity of the derangements which are propagated along its whole extent. When no fractures are detected in the diaphysis of the bone, some lesion in the ulnar articulation must be suspected. When the lesion does not seem severe enough to call at once for amputation, we must be prepared for secondary occurrences which will unfit the limb for its functions. Still, conservative treatment should in such cases be attempted.—*Boston Med. & Sur. Journal* from *B. & F. Med.-Chir.*

PERIOSTEAL REPRODUCTION OF BONE.—It is claimed that Boyer anticipated Flourens, Ollier, and others in the discovery of the reproduction of bone by the periosteum. He says that in Boyer's work on practical surgery, "all the circumstances of the reproduction of bone by the periosteum are carefully enumerated, according to the origin, extent, or depth of the mischief," and presents the following among other quotations, therefrom, in proof of his statements: "When the periosteum of both surfaces of a bone has been spared, it inflames, the vascular net-work becomes more apparent, the thickness of the membrane increases, it parts from the modified structures, and the interval is immediately filled up by a gelatinous, or more properly an albuminous substance, at first semi-fluid and jelly-like, but subsequently more consistent and adhesive to the periosteum only. This albuminous layer becomes more compact and opaque; red patches are soon discernible, and it blends with the enveloping membrane from which it can no longer be distinguished. In this mass, streaks and layers of bony deposit, at first sparse and disseminated, are, after a time, visible; they increase in number and close with each other; the thickness and density of the mass daily become greater, and at the same time it is deflected and swerves from the mortified bone; for a long time it can be readily cut through, and the surface of the incision presents a cellular mixture of solid and apparently fleshy aspect; the osseous structure at last shows itself unmistakably; *a new bone has been formed*, and the surface corresponding to the morti-

fied fragment remains covered with a thin layer of soft texture, which replaces the internal periosteum.

RE-ORGANIZATION OF THE MEDICAL DEPARTMENT OF THE ARMY.—Senator WILSON, of Massachusetts, has introduced a bill into the Senate, which looks to the attainment of the following ends:—

1. The introduction of an efficient corps of medical officers, especially devoted to sanitary inspection and hygienic administration.

2. The selection and appointment of the Chief of the Medical Bureau—the Director-General—as well as all the Sanitary Corps, solely with reference to *fitness*.

3. The establishment of a rule for the honorable retirement of every medical officer, at a specified age of presumed inability.

4. The recognition of, at least, one degree of higher rank in the medical staff.

5. A better definition of the various ranks in the medical staff, and a systematic assignment of general departments of labor to each rank or class of surgeons.

6. An increase of the class of Medical Cadets, and a proper recognition of their status and privileges in the medical staff of the army.

Meanwhile, Congress is quarrelling over the admission of homœopaths into the army hospitals, and two of the highest regular Medical officers have been rating each other soundly, while a volunteer association is inspecting hospitals and camps, feeding, attending and clothing the sick, and in general, performing the duties appertaining to the regular Medical Department.

TREATMENT OF CHILD-BED FEVER.—In the epidemic of child-bed fever which occurred some time ago, in the obstetrical clinique of Professor Von Ritgen, the following plan of treatment was adopted, with exceedingly beneficial results, as even cases of the utmost severity were cured under its influence. At first $\frac{1}{4}$ th of a grain of morphia was given, and this dose repeated two, three, or even four times a day, according to the violence of the abdominal pain. An hour after the dose of morphia, a mixture of camphor was administered:

R—Camphor,	-	-	-	-	℥ss.
Gunni mimos.,	-	-	-	-	℥j.
Aq. Chamomill.,	-	-	-	-	℥iij.
Liq. Ammon. acet.,	sacch. albi,	aa.,			℥j.

An hour after this the patient took one grain of quinine; then another dose of morphia, and so on, until the symptoms decreased, which was the case with all patients hitherto treated in this manner.—*Med. Times & Gaz.*

REGENERATION OF OSSEOUS TISSUE.—We copy the following from the *San Francisco Med. Press*:—

“The following review of the researches of M. OLLIER in this department of Physiology, which is daily becoming more and more interesting, from its important bearing in reference to Operative Surgery, we translate from *Canstatt's Jahresbericht*, 1st vol., 1861:

The part which the periosteum performs in the regeneration of osseous tissue, OLLIER attempts to show, by a series of interesting experiments. In order to resolve the question, whether portions of bone could be reproduced outside of the normal limits and regions of ossification, as well as by the agency of blood-vessels, to which such function does not normally belong, OLLIER attempted and effected transplantation of portions of the periosteum, taken from the living bone. His experiments were performed upon rabbits, in which he detached portions of periosteum in such a manner, that a part of them was left with its original attachments, while the other was separated and drawn out through the muscles. In another series of experiments, these flaps of periosteum were detached from the bone after a few days; finally, in a third set of experiments, the flaps were wholly detached from the bones, and were transplanted upon adjacent and also on remote portions of the body. In all cases, in connection with the periosteal flap, there was found a new layer of bone, of different degrees of strength, corresponding to the dimensions of the flap: this new bone consisted of a compact cortical structure and of medullary cells, the latter finally uniting in a large medullary cavity. The newly formed bone, independent of a slight irregularity of the Haversian canals, exhibited the same structure, when examined microscopically, as ordinary bone: it had a red marrow, rich in vessels, and similar to that of the fœtus. The formation of the new bone does not proceed from the fibrous portion of the periosteum, but from a thin layer of blastema, which covers the inner superficies of the periosteum, and contains free cells, nucleated cells, and an amorphous, granulated material. Where the blastema was rubbed off from the inner surface of the periosteum, there occurred no deposit of bone; when the fine fragments of this blastema were strown upon other tissues, they produced bone cells, without the aid of the fibrous portion of the periosteum.

The course of the formation of bone is not, throughout, constant and similar; during the first few days, the flaps of periosteum, as well as the surrounding tissues, become swollen, on account of the infiltration of lymph; soon afterward, there appear, on the inner surface of the periosteum, masses of matter deposited, distinguishable on account of its consistence: the deposition of calcareous matter commences about the seventh or eighth day. The mass, impregnated with calcareous matter, is sometimes fibrous in structure; at other times it is of a cartilaginous nature, the cellular spaces of which usually contain a single simple cell, or else fine granules. The bone, when stripped from its periosteum, is soon again invested with a thin, delicate layer of matter, which soon unites with the wounded edges of the old periosteum: in eleven or twelve days afterward, the formation of vessels appears, in the new layer of matter, the vessels arising from either the edges of the wounded periosteum, or from the bone itself: along with the vessels, there are also produced connective tissue and elastic fibrous matter. In six or seven weeks, this newly formed periosteum acquires the power, similar to the original one, of generating masses of bone in any part of the body; still, it should be stated, that this reproductive attribute is not possessed, to an equal extent, by all portions of the periosteum. For example, after transplantation of the pericranium, there appeared but a very diminutive osseous granulation; on the other hand, the dura mater, (as much of it as is in connection with the cranium,) when transplanted beneath the skin of the sides and other regions of the body, in 30 or 40 days afterwards, produced fragments of bone, of from 2 to 6 millimetres of thickness. (A millimetre equals a half line.) The flaps of the periosteum retained the power of reproducing bone, when they had been detached 10, 30, 60 and even 99 minutes after the heart of the animal from which they were taken had ceased to beat. An entire humerus was taken from a rabbit that had been killed, and was inserted beneath the skin of another living rabbit; the bone not only grew fast in its new place, but increased in length and breadth, the growth in the latter direction being greater. When the bone was taken from an animal of another species, the operation failed; the transplanted bone either causing an abscess, or, after a time, disappeared by absorption.

BELLADONNA SHORTENING LABOR.—Dr. B. F. Barker gives a table of 147 cases of labor, in all of which belladonna had been given for the purpose of dilating the os externum by comparatively painless contractions. The extract was given

in one-quarter-grain doses, two or three times a day, commencing about two weeks before the end of gestation. Plethoric patients took tartar emetic in combination with belladonna—three grains of the former, eight of the latter, in two ounces of the syrup of orange peel, one ounce of the tincture of orange peel, and one ounce of water; a teaspoonful three times a day. With some the following formula was used: compound tincture of cinchona, three ounces; syrup, one ounce; extract of belladonna, eight grains. Other combinations were prescribed to fill special indications.

A very great difference appeared in the susceptibility of patients to the influence of the agent, and also a great difference in the purity and strength of the article. One would seem to have double the potency of another, without any corresponding difference in the appearance, color or odor. In some cases the dose had to be diminished, but in most instances it could be gradually doubled, or even tripled. Dryness of the throat, slight uneasiness or giddiness in the head, dimness of the vision, are indications to diminish the dose. Not one of the children was still-born, and in none of the cases was there post-partum hæmorrhage or retention of the placenta. In one the function of lactation was entirely absent; in two others the mammary secretion did not appear until the fifth day.—*Amer. Med. Jour.*

PUERPERAL CONVULSIONS.—Dr. T. J. Thomas, in one of his lectures on the complications of labor, delivered in the University Medical College, New York, thinks the term puerperal should convey the idea of eclamptic seizures, of epileptiform character. Poisoning of the blood, usually uræmia, is, in a vast majority of cases, the great cause of the seizures. As a rare exception to this rule, centric or eccentric irritation may act as a cause. The avenues by which death may approach, are apoplexy, asphyxia, serous effusion, coma, exhaustion and paralysis of the heart. Consequently, the primary indications of treatment may be enumerated as follows:

1. Check the convulsive action at once and thus prevent death by asphyxia, the cerebral conditions resulting from congestion, and failure of the heart to perform its function.

2. Diminish vascular turgescence, and excessive action, and thus remove the great liability to apoplexy and coma.

3. Evacuate the uterus, if possible, because experience has proved that, in the majority of cases, the seizures will then cease, and because we thus remove pressure from the kidneys.

4. Eliminate or neutralize the poison accumulated in the blood.

Anæsthesia by chloroform, resorted to early and fearlessly, is by far the best means to control the convulsions, but its influence must be kept up steadily and unintermittingly, even for twenty-four or forty-eight hours, if necessary, and in such manner as to effect the object in view, if it can be effected by this means. When anæsthesia fails to control the convulsions, blood-letting should be taken into consideration. It may be necessary, but its indiscriminate employment is very injurious. In regard to the third indication, labor, if actually commenced, should be encouraged and hastened, so soon as the convulsions are at all controlled. Should the woman not be at term, an attempt must be made to manage the case without the induction of labor; but the latter should be accomplished when other means fail to prevent the return of the seizures. For this purpose, pass a sponge-tent into the os uteri, use the warm douche freely against this and the encircling fibres of the os, and employ the colpeurynter or a bladder placed in the vagina and filled with water. Should the os be dilated, stimulate the fibres of the uterus by placing a gum-elastic catheter between the membranes and the uterine body, or deliver by version or the forceps. The kidneys being crippled in their functions, it is finally advisable to act freely on the mucous membrane of the alimentary canal by active cathartics—salines, if the patient can swallow, otherwise croton oil. The skin should be made to act by the hot-air or vapor bath. In addition, dilute citric or benzoic acid should be freely given, with the hope of forming in the blood citrate of benzoate of ammonia. The former may be given in the form of lemonade.

As cases complicated with œdema are much more favorable than those without it, some benefit may be derived from the artificial production of œdema, by ligatures applied around the arms and legs tight enough to interfere with venous return, but not to obstruct arterial flow. Sometimes in the convulsions occurring after delivery, opium, in full dose, is highly useful, but its use requires great caution.—*Am. Med. Monthly.*

TARTAR EMETIC IN ASTHMA.—In three cases of long standing, Dr. E. B. Forsee obtained permanent relief by nauseating doses of tarter emetic with morphia: one-fourth or one-eighth of a grain of the one, one-eighth of a grain of the other, repeated every twenty, thirty or sixty minutes. When the spasmodic action abates, the patients are advised to take small doses of antimonial wine for some days.—*St. Jo. Med. and Surg. Journal.*

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